NATIONAL PETROLEUM NEWS

Vol. XVIII Cleveland, Ohio, September 15, 1926 No. 37

Method to Measure Knocking Qualities Of Gasoline Proposed to Chemists

PHILADELPHIA, Sept. 13

A NEW standard for the measurement of anti-knock value of motor fuels was proposed to the Petroleum Division of the American Chemical Society, in session here, by Dr. Graham Edgar, chemical director of the Ethyl Gasoline Corp.

The standard is made by blending two pure paraffin hydrocarbons, one of which is a violent knock inducer and the other an almost absolute anti-knock. The two hydrocarbons are a pure normal heptane (C_7H_{16}) and a synthetic chemically pure octane (C_8H_{18}), which was first prepared in the laboratory of the Ethyl Gasoline Corp.

The fuel proposed as a standard can be made up by blending the two constituents in different proportions as required, to duplicate the anti-knock characteristics of any fuel to be tested. Dr. Edgar proposes that the Bureau of Standards certify this fuel as a reference fuel and it is understood that bureau officials have unofficially agreed to do this.

The development of this standard fuel apparently marks a long step toward making possible exact and reproducible determination of the respective anti-knock values of different gasolines. This has been very difficult, if not impossible, hitherto.

Can Translate Results

DR. EDGAR pointed out that, although there are satisfactory means of comparing anti-knock value of two fuels, these methods do not give results that can be translated into terms of other fuels and other engines or checked by technologists using other methods.

One objection to the anti-knock measuring methods now in use is that they have been to a large extent taken by investigators not thoroughly versed in the subject as having an absolute significance that they do not have. They are misleading and cause confusion when they are taken as giving a true index of the value of a gasoline for general use.

Dr. Edgar said that the method proposed by Harry Ricardo, the English technologist, of measuring in an engine of variable compression the compression ratio at which knocking begins and to designate this as the "highest useful compression ratio," is satisfactory enough as a method of comparing two fuels. The results have no absolute significance, although they have been considerably used as a method of rating gasoline quality, he stated.

Many Varying Factors

THIS method he terms an unsatisfactory, although it seems at first sight it might furnish an absolute index to the knocking quality of fuels, because there are so many factors entering into engine performance which cannot be kept anywhere near constant. Tests taken with the variable compression engine under different conditions would make the results misleading. Among the factors entering into the problems of accurate determination of knocking tendency, are: the compression ratio; fuel-air mixture; temperature of the charge; temperature of the cylinder walls; spark timing; design of engine head; position of spark plugs and valves; materials of which cylinders and pistons are made; cleanliness of cylinder and piston; humidity of the atmosphere; barometric pressure; amount of leakage at valves and blow-by at pistons. Only five of these factors, Dr. Edgar says, can be kept anywhere near uniform.

On account of the number of variables entering the picture, he states, which change from day to day and even from test to test, results obtained with such testing methods cannot be translated from the engine on which the testing is done into terms of performance in any other engine and therefore give no practical index as to what may be expected of the fuel in general use.

Another way that has been attempted to measure anti-knock quality is in terms of spark advance, the spark being advanced in an engine of fixed compression until knocking begins. The mean effective pressure or the speed developed by the engine have been similarly employed. The uncontrollable variable factors, according to Dr. Edgar, make these tests worthless except as to results on the testing engine.

Still another method used by some investigators is to compare the fuel to be tested with some standard fuel made by blending gasoline with anti-knock materials such as benzol, tetraethyl lead or aniline and rating the fuels in terms of how much of these substances must be added to the fuel under test or the standard fuel to give them the same anti-knock characteristics.

Bouncing Pin Method

THE bouncing pin method developed by Thomas Midgley, Jr., and T. A. Boyd of the General Motors Research Corp. would be reasonably satisfactory for comparing the knocking tendency of two fuels, Dr. Edgar says, if some reproducible standard fuel were available, by reference to which the results obtained by different investigators could be compared. There has been, however, no such standard fuel.

Most laboratories have employed as a standard some arbitrary sample gasoline. In some cases, gasoline from a given source and showing the same tests has been considered sufficiently uniform to serve as a standard, apparently an unwarranted assumption, says Dr. Edgar. In some cases, special fuels have been prepared by blending, great care being taken to maintain uniformity but there is no way of comparing these standards of different laboratories except by actual cooperative tests.

Alcohol and benzol are relatively non-knocking fuels and will not serve as a

yardstick for the measurement of the knocking tendency of commercial gasolines, Dr. Edgar says.

He stated that investigations in the laboratory of the Ethyl Gasoline Corp. showed that chemically pure normal heptane is a very strongly knocking hydrocarbon, a worse knocker than any commercial gasoline examined. It was also found that a certain octane, first prepared in his laboratory, is comparable to benzol in knocking value. Professor Edward Kremers of the University of Wisconsin has shown that a pure normal heptane may be prepared by the distillation of Jeffrey pine oil, available in large quantities in the western forests. The properties of this heptane, obtained from Professor Kremers, are as follows:

Boiling point at 760 mm., 98.4° C. corrected.

Specific gravity, 0.6847 at 20°/20°C.

Viscosity, .00427 at 18.5°C.

Refractive index, 1.3874 at 20°

The New Octane

THE new octane may be named either tri-methyl-isobutyl methane or 2.4.4-tri-methy pentane having the structural formula:

$$\left.\begin{matrix} CH_3 \\ CH_3 \\ CH_3 \end{matrix}\right\} CCH_2 - CH \left\{\begin{matrix} CH_3 \\ CH_3 \end{matrix}\right.$$

Concerning the discovery of the new octane, Dr. Edgar states it grew out of the search for a means to obtain some one pure paraffin hydrocarbon as cheaply as possible. It was not suspected in advance of having the remarkable non-knocking properties it really possesses.

Tertiary butyl alcohol, which has recently become plentiful and cheap through its manufacture from cracked petroleum gases was taken as a starting point. Unsaturated hydrocarbons, octenes, had been made before, but nobody apparently, had ever thought of hydrogenating them to make octanes. Dr. Edgar states the new octane may be simply prepared by treating the tertiary butyl alcohol with sulfuric acid and hydrogenating the resulting octent. He states also that a considerable quantity of the new octane is now being prepared and will shortly be available commercially.

The properties of the new octane are as follows:

Boiling point at 760 mm. 99.3°C.

Specific gravity, 0.6914 at 20°/20°

Viscosity, .00543 at 18.5° C.

Index of refraction, 1.3921 at 20° C.

Advantages of the New Fuel

THE value of the new fuel is thus described by Dr. Edgar:

"It was found that, by mixing the two fuels, in varying proportions it was possible to duplicate the knock characteristics of any given gasoline. The two substances have boiling points so nearly identical that variation of the composition of the explosive mixture because of unequal vaporization is not to be feared. The chemical composition of the two is so nearly identical that the fuel-air ratio is not materially altered by altering the proportion of the two.

"Heptane is a normal constituent of gasoline and the new octane belongs to the same class of saturated paraffin hydrocarbons. If these hydrocarbons should be generally adopted as a basic standard fuel it would be possible to obtain them at not unreasonable cost and in sufficient quantity to serve universally as a primary standard. (Dr. Edgar estimates the new fuel will cost around $8 a gallon.)

"Whereas it is not necessarily true that even the comparison of two fuels for knocking tendencies is absolutely independent of the method of measuremnt, there is much evidence that it is approximately so, provided that constancy of operating condition is maintained during a comparison, and the two fuels measured as nearly as possible at the same time.

"It should at least be possible by cooperative work to establish conditions under which reasonably reproducible results may be obtained by different laboratories using any one of several experimental methods. It is probable that the standard fuel described above will always be too expensive to serve as a routine working standard; but, by using it as a primary standard with which to evaluate the working standard gasolines employed by different laboratories, it should be possible to rate all gasolines in terms of varying proportions of the two standard hydrocarbons and to establish definite specifications for gasolines for different purposes corresponding to any desired knock characteristics which it might be desired to maintain.

"Thus, U. S. Motor might be required to maintain a standard of knock tendency at least equivalent to a certain mixture of the heptane and octane; fuels for high compression engines, airplane engines, etc., would be required to maintain a different standard as might be desired, and the specifications would be capable of test by any laboratory more or less independently of arbitrary methods of measurement."

Oil Burners Increasing

HIGHER prices for fuel than last winter and propaganda from coal dealers have not prevented an expansion of the market for furnace distillate, oil jobbing companies from 48 cities report to National Petroleum News.

But contracts at flat prices with consumers are not as common.

Jobbers, in their turn, find it more difficult to contract with a refinery source of supply.

Prices to consumers will range at most points from one cent to two cents a gallon higher than last winter.

Details on the above points will be found in a special article in the Sept. 22nd issue of National Petroleum News.

Apex Motor Fuel Develops Radiator Fluid

CHICAGO, Sept. 11.—C. S. Rosenthal, general manager Apex Motor Fuel Co., Chicago, has announced his company will distribute a radiator fluid at their own stations and, in a limited way, through other jobbers in the vicinity of Chicago. It will be called Apex Non-Freeze Liquid and will be guaranteed not to freeze at 25° F. The liquid has a boiling point of 225 to 230° F. The compound will be distributed in cans, ready to pour into a radiator, and the loss, Mr. Rosenthal says, is nothing. A motorist can use it in his car all winter, drain the fluid into a can in the spring and put it back in his radiator the next winter.

Index To Coming Meetings

Regional meeting, American Association of Petroleum Geologists, Denver, Sept. 21-23. In conjunction with meeting of American Mining Congress, Sept. 20-24.

Missouri, Iowa, Kansas and Nebraska jobbers to hold joint convention, Hotel President, Kansas City, Mo., Sept. 28, 29.

West Virginia Oil & Natural Gas Association, Parkersburg, W. Va., Sept. 28, 29.

Ohio Gas & Oil Men's Association, annual meeting, Columbus, O. Oct 5. 6.

Petroleum Division, American Institute of Mining and Metallurgical Engineers, Tulsa, Oct. 11-14.

Petroleum Section National Safety Council, Detroit, Mich., Oct. 25, 26, 27, 28, 29.

National Petroleum Marketers Association, Atlantic City, Oct. 26, 27, 28.

American Oil Men's Association, Congress Hotel, Chicago, Nov. 16, 17 and 18.

American Petroleum Institute, annual meeting, Mayo Hotel, Tulsa. Dec. 7. 8. 9.

Michigan Independent Oil Men's Association, Detroit, Feb. 10 and 11, 1927.

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Published at

TULSA	NEW YORK	MAIN OFFICE	HOUSTON	CHICAGO
Bank of Commerce Bldg.	342 Madison Ave.	812 Huron Road Cleveland, Ohio	608 West Bldg.	360 North Michigan Ave.

Daughter of Woman Oil Lease Broker Is Named "Miss America"

Staff Special.

TULSA, Sept. 11.

A MONTH ago Miss Norma Smallwood of Tulsa was just the beautiful but accomplished daughter of one of the few women oil lease brokers in the United States—Mrs. M. A. Dickerson. Today she is world famous as "Miss America for 1926."

While Miss Smallwood was being crowned "Miss America" Friday night at the conclusion of the annual bathing beauty pageant at Atlantic City, her mother was in the audience and it would be a cinch bet she wasn't thinking of those leases she has been handling recently in the Panhandle region. Mrs. Dickerson for the past two weeks has been a busy woman, what with chaperoning her daughter at various affairs since she was chosen Miss Tulsa, and running back and forth between Tulsa and the Amarillo in connection with her lease business.

Miss Smallwood's father is dead. she is a true Oklahoma girl, although her parents came from Arkansas. She was born at Bristow, but moved with her family to Tulsa six years ago. She is a graduate of Kidd-Key College in Texas, and last year was a sophomore in the Oklahoma State Teachers College for Women at Chicakasha.

Miss Smallwood was chosen by her schoolmates as the prettiest girl in Kidd-Key College. Later she won first prize in the Stone Mountain Memorial contest, and has won several prizes as a Charleston dancer. She has a sister 16 years of age who recently eloped after a romantic courtship and is now Mrs. Alfred Simpson of Oklahoma City.

—Underwood & Underwood

Miss Norma Smallwood, Tulsa, "Miss America for 1926"

Motor Oil Substitution On Jobber Program

Staff Special—By Telegraph

CHICAGO, Sept. 14.—Independent oil jobbers of Missouri, Iowa, Kansas and Nebraska will hold a joint convention in Kansas City at the Hotel President, Sept. 28 and 29. George S. Allee, M. L. Long, J. A. Motter and Charles M. Sutherland, secretaries respectively of the above-named associations, completed arrangements in a conference in Omaha early this month. Anti-knock gasoline is the main subject up for consideration.

Each state organization will assemble separately the forenoon of the first day. Missouri jobbers will hold their annual meeting and election of officers. That afternoon marketing problems will be discussed at the general gathering. The second morning "Gasoline of the Future" will be the subject of talks and discussions. Lubricating problems will occupy the afternoon and especial attention will be given to substitution problem.

George M. Husser, representing the Better Business Bureau of Kansas City, will tell the results of a recent investigation into substitution of poor motor oil for good oil by retailing agencies. Warren C. Platt, editor of National Petroleum News, Cleveland, will discuss lube oil substitution figures as offered to the public by investigators in eastern cities. Lubrication and greasing also will be discussed.

The Kansas City Club of Oil Men and Allied Interests will be host the first night at a banquet at the Hotel President.

Marketer Buys More Stations

ROCKFORD, ILL., Sept. 13.—The Osborne Oil Co., which was organized four years ago by W. J. Osborne and capitalized at $250,000, has purchased the P. D. Foster Oil Co., of Beloit, Wis., capitalized at $35,000.

The purchase included service stations operated by the latter at Beloit, Rockton, Janesville and Clinton Wis.

The Osborne company has been operating four stations in Freeport, Ill. Officers are: W. J. Osborne, president; Eric Ekstrom, vice president; L. S. Scott, treasurer; and C. B. Joyce, secretary.

Opens Office in Chicago

HOUSTON, TEX., Sept. 11.—The Crown Central Petroleum Corp., with general offices here, refiner of zero pale and red filtered and unfiltered oils, has opened a branch sales office at 624 S. Michigan Ave., Chicago, rooms 1115 and 1116.

Henry P. Bolt, who has been covering Chicago territory for the company, will have charge of the Chicago office. An office at Kansas City will be opened by the company in the near future, Mr. Bolt states.

Big Saving to Refineries in Properly Firing Boiler Plants

WITH new and improved boiler plant equipment installed, and with proper firing methods, 19 eastern refining plants which are members of the cooperative engineering project of the National Petroleum Association could save close to a half a million a year, B. B. Stroud, McKean County Refining Co., Bradford, Pa., member in charge of this work, was to tell the Association in convention at Atlantic City Sept. 16.

The cost of the new equipment for increased boiler plant efficiency would be about $550,000, according to Mr. Stroud, who is trustee in charge of the association department of manufacture.

In spite of the fact that a saving of $154,940 annually would result to these 19 plants from proper firing methods, without installation of any new equipment, Mr. Stroud was to point out that some of the plants let their boiler force slip back to old methods of firing after H. A. Ross combustion engineer for the association, corrects conditions; and that the duty of seeing that plants are held up to a rate of efficiency that will allow these savings devolves principally on the plant executives.

Mr. Ross, mechanical engineer with H. S. Bell's organization, was to tell the refiners that possibly as much as 20 per cent of steam generated in these 19 boiler plants is wasted to the atmosphere directly; that, condensed, it could be used for boiler feed water, and scale formation in the boilers avoided and the cost of boiler compounds saved. Mr. Stroud's remarks were to be as follows:

Mr. Stroud's Remarks

"AT our meeting here last year some 30 members met informally to discuss the manner in which engineering service could be purchased by the association.

"A rather elaborate plan was suggested, but, upon taking this up with our trustees, it was thought best to go into the proposition rather conservatively and, instead of trying at once to secure the services of a general refinery engineer together with a competent staff, that we would do better to select one refinery activity that was purely an engineering problem and in no way peculiar to oil refining.

"The trustees unanimously agreed that our boiler plants were in as great need of expert service as any other one department. Accordingly we secured the service of a combustion engineer who was able to don overalls and demonstrate beyond question what could be done by scientific firing.

B. B. Stroud, McKean County Refining Co., trustee in charge of cooperative engineering work for National Petroleum Association

"At our Cambridge Springs meeting last spring some nine plants had had such service and remarkable results were obtained.

"We now have in this group 19 refiners. A total of 14,400 BHP is represented. Total coal consumption, as running when first inspected, amounted to 17,956 tons, representing an expenditure of $2021.24 per day. The average efficiency of the plants was 44 per cent. By simply correcting improper firing methods the total coal consumption was reduced to 14,245 tons, or a saving of $418.57 per day.

"For the nineteen refineries, an estimated total yearly saving by proper firing, with present equipment, of $154,940.00 has been made, an annual average saving per refinery of $8150. Total boiler house power was 14,400 and the estimated average saving per boiler house power $10.76. The minimum saving for one refinery is 10 per cent of the fuel and the maximum 48 per cent.

"Our engineers also made recommendations for installation of new equipment for increased efficiency. The total cost would be $548,436. The estimated annual saving by use of the new equipment would be $320,624. This added to the estimated saving by proper firing results in a total annual estimated saving of $475,564. The engineers state that they have been conservative in their estimates and express the belief that 'any one of these companies has the right to expect even better results.'

"Gentlemen, these figures are facts and you who have gone into this know they are facts and in the face of these facts, we must report this astonishing condition:

"Of the 19 refiners, only four have maintained the condition in their plants as it was left by the engineer, four more have maintained a condition better than was originally found, but eleven are only a little better off than before the engineer made his report and this though he has corrected conditions upon several visits.

"We felt that the hard part of the program was to sell the idea and had no thought but that, once a member put his money in, he would take every advantage of the service and see that he got all the returns possible. Finding the conditions just outlined, we asked ourselves wherein lay the fault. After analyzing carefully the different conditions prevailing, we are sure the following, in order of importance, is the cause of failure to realize the great benefits that we absolutely know are possible:

"1st. Lack of executive interest in seeing that recommendations are carried out.

"2nd. Failure to have man directly in charge of and responsible for boilers, their firing and maintenance.

"3rd. Continued employment of men who who have reached the state permanency.

"4th. Impossibility of more frequent visits by our employed engineer at the price we are paying.

"Gentlemen, these facts cannot be ignored. They are dollars and the refining of oil must be carried on by us with an eye to every possible manufacturing economy. We must be just as efficient as the packing, the chemical and the steel industries. We promise you an attractive return on your investment. To those who followed our engineer's recommendations, the return was better than promised.

"If such a condition prevails with reference to your boiler plants, is it not fair to assume that all through your refinery similar wastes are going on?

"We refiners cannot very well complain of competition if we do not correct such glaring wastes as are represented by our boiler plants."

May Buy Lewis Properties

TULSA, Sept. 11.—Properties of the Lewis Oil Co. in the Mid-Continent are reported to be about to be sold to The Texas Co. The Lewis company has a daily average production of about 3500 barrels of crude and has two gasoline plants. If the deal is consummated Texas Co. production in Oklahoma and Kansas will be around 30,000 barrels per day.

Perhaps 20% of Steam Wasted in Air

By Herbert A. Ross
Mechanical Engineer, with Harold S. Bell
Delivered Before National Petroleum Association Sept. 16

WHEN I stood before this association last spring, I made certain statements as to the saving in fuel I thought it possible to secure by change of method, etc. in your boiler rooms, I did not, at that time, have a great amount of facts with which to reinforce my statements. Some of you gentlemen, I know, were somewhat skeptical. You will also recall that I confined myself principally to indicating to you the various places where loss could occur in a boiler house, and the methods by which these losses might be abated.

I stand before you now with a mass of figures based on facts and a fund of information, gleaned by actual personal contact in your refineries, that should be of considerable money value to you. If you will heed the advice I extend to you, your investment in the service we have undertaken in your behalf will be returned to you manifold in the course of a year.

This work, started just about a year ago as an experiment, is today an accomplished fact and far exceeds, in importance, the most sanguine hopes of its originators. When we started this campaign, we had nothing much with which to support our theories, nor had we any precedent whatever as a guide to our effort. We were therefore, compelled, by reason of these very conditions to be exceedingly careful and conservative in the statements we made relative to the amount of saving we could assist you in securing. Now, in every case where the managements have gone to it and made the least attempt to follow our advice, loss has been changed to a profit, in greater amounts than we promised in our reports of survey. Mark you also, scarcely any money, other than what was invested for our advice, has been spent.

There are men present, who are today saving anywhere from $500 to $1000 or more, per month in their cost of fuel. In addition to this, they have also, in practically every case, increased their refinery through-put or total distillation.

Coal a Basic Material

YOUR basic materials are crude and fuel, one you call oil, the other coal. You endeavor at least to purchase your oil according to what you term "specifications," and you sell it in like manner. This specification is a definite standard, the characteristics of which have been established by common consent and laboratory research.

When this oil is delivered to you, it is received and measured according to another standard, which we term a "pound" or "gallon." This unit of measurement has likewise been established as in the former case.

Herbert A. Ross

After the oil is received, we proceed to process it entirely by means of standards or comparisons based on percentage of yields, degrees of heat, units of color and viscosity seconds. All the way through our refinery, from the raw to the finished product, we use standards of comparison, applied by the best intelligence we can obtain, and we furthermore personally check all this operation by means of reports, calculation and tabulation, based on daily comparisons of operations, etc.

How About Boiler Plant?

WHAT standards, what systems, what intelligence do you accord the heart of your plant? What records have you for comparative purposes? What did you do last year—or the year previous? Upon what standards of calorific value, moisture, ash, volatile and fixed carbons, sulphur, etc. do you purchase your fuel? Isn't it a fact that so far as you are concerned—gas is gas, and coal is coal? It all burns and that satisfies you. What standards of weight, other than the supplier's invoice, do you use? After you receive your fuel what standards do you use whereby you determine the actual value of the heat you produce from it, and its quality? Finally, what is the quality of the intelligence you purchase for this important part of your plant?

Are you aware that certain standards have been established for your boiler houses that are just as true as those you apply in your other departments? Can we make a better start then, than to begin at the very heart of our refinery—the boiler room?

For the present I want to have you assume with me that we are the Board of Directors of a large corporation, gathered together for the express purpose of determining why we are suffering such tremendous loss in our boiler rooms. I shall use 19 refineries which I have surveyed to construct a composite or theoretical boiler house. I am sure that no fault can be found with comparison of this character and I also have the assurance that I will not incur your displeasure by using your particular plant as a shining example—or otherwise.

Remember, this is a theoretical boiler room we analyze, also that it is constructed from actual figures as to capacities and quantities just as you have given them to me. I want you also to understand that the figures or calculations I mention are based, or derived from, positive and definite standards as they are applied to boiler house practice today, and are universally used. No "guess," therefore, enters into the statements I shall make in this connection.

Rated at 14,400 H. P.

THIS composite refinery has a total rated boiler capacity of 14,400 H. P. per hour, and based on an equivalent of 30 pounds of steam per H. P., is capable of generating or producing 432,000 pounds of steam per hour. I may mention here that I have discarded fractional quantities and am using round figures in order that you may follow without unnecessary mental effort.

This boiler house consumes approximately 25 net tons, or 50,000 pounds of coal per hour, at an average cost of about $3.50 per ton. The daily coal consumption is 600 tons, or approximately 12 carloads, and the daily cost of the coal is $2100. An interesting short tabulation of these quantities per hour, day, month and year is as follows:

	Tons per Hr.	Tons per Day	Tons per Mo.	Tons per Year
Coal Consumed	25	600	18,000	216,000
50 Ton Cars	.5	12	360	4,380
Cost	$87.50	$2,100.00	$63,000.00	$756,000.00

Note that the yearly coal consumption costs over three-quarters of a million dollars. Note also that this cost is for coal alone. No fuel oil, gas or other combustible is considered, nor is any cost for power purchased included. The amount stated is consumed under the boilers, or in connection with the gen-

eration of steam, and not with the stills.

The actual average evaporation in this refinery is 6 pounds of water per pound of coal. Now—mark closely what I am saying—this evaporation of six pounds of water per pound of coal is equivalent to five pounds of coal per B.H.P. produced, using again the basis of 30 pounds of steam per B.H.P. According to the tabulation, we use 50,000 pounds of coal per hour. Dividing this amount by the five pounds of coal per B.H.P., we must have developed 10,000 B.H.P. per hour. That we are correct in this assumption is proven by the fact that our equivalent evaporation F&A 212 degrees Fahr. is 6.3, and this gives us a combined efficiency for the boilers and grates of approximately 45 per cent. This again checks with our calculation as reported, on a basis of coal with a calorific content of 13,500 B. T. U. per pound as fired.

We estimate from our calculation that simply by changing the method of firing the boilers, it is possible to save $10.76 per H. P. per year and that the total possible saving on 14,400 B. H. P. is $154,940. Understand me, you don't spend a single penny to do this! You must spend effort, however, and I can't emphasize that statement too strongly.

Another factor occurs right here that I want to "hammer home." With proper equipment provided, in order to secure all efficiency possible, an additional $320,624 per year can be saved. This amount, and the previously named sum, making a grand total of $475,564.00, or nearly one-half million dollars per year possible saving.

Steam Is Wasted

I HAVE walked through plant after plant and noted the steam that is wasted to the atmosphere directly, run to the sewer or condensed in large tanks of water, so arranged that the water is continually flowing through them and wasting to the sewer.

I have noticed steam leaks innumerable, uninsulated high and low pressure lines, and hundreds of foot of pipes filled with steam, buried in the cold earth, running in open trenches, or in low spots filled with water. In these very same refineries, I have noted the firemen at the same time working in a very hell of heat, in an effort to hold their pressure of steam, when possibly twenty per cent or more, of what they were producing was being directly wasted and serving no useful purpose.

I have often wondered where this fallacy that steam had no further value after it was once used ever originated. You raise the roof if your firemen let their safety valves blow for only one minute, but nothing is said about the other orifices (big and little) that are blowing steam to the atmosphere 24 hours a day, and 365 days in the year.

This refinery wastes approximately 50,000 pounds of steam per hour to the open air or the sewer. This steam has cost at least 50 cents per M pounds to produce. Thus a direct loss of $25 per hour, $600 per day or $219,000 per year occurs. This amount of money will purchase 62,570 tons of coal, or an equivalent of 1250 carloads. The rejection of this steam to the sewers carries along with it all condensate at a temperature of at least 210 degrees Fahr. from absorption machines, heating coils, etc., and miscellaneous drips.

This water is practically a distilled product of the boilers, all impurities have been eliminated. Consider this inconsistency. Water is secured from a stream or from wells, and in every case pumped over the still condensers. This water is absolutely raw, carries all of its original impurities and probably a lot more in addition, gathered from the open condenser box. The only virtue which it possesses is a bit of heat it carries. This is the boiler feed water supply and in order to prevent scale formation in the boilers, we purchase a feed water compound costing anywhere from $50 to $75 per drum and introduce this into the boiler along with the feed water and its impurities, thereby increasing our already high concentration. The direct result of which is a heavily saturated condition of the steam, which is carried over into your stills.

Is Superior Boiler Feed Water

DID you ever stop to think that you could use all of this superior condensate you waste to the sewer, for boiler feed water, and thereby probably save the cost of compounds, and, at the same time, reduce the heavy scale formation in the boilers?

There is another side to boiler house economics to which I direct your attention, by first asking the question "How much unnecessary power are you wasting through leaking valves and pistons in your pumps and engines?" Do you know that they are tight and in good mechanical condition? Some of our refineries have spent large sums of money for labor and fuel-saving equipment of various kinds. Are they functioning correctly, and are you using them properly and intelligently?

Gentlemen, this is your composite refinery boiler house. It is yours to defend—not mine. Mark you, also, I have endeavored to be just as conservative in my recommendations of expenditure in them, as I am in my remarks to you today. I have not told half that I might, for I have a due regard of the ethics of my profession and my confidential relationship with each one of you. But I feel that I must stress some facts in your assemblage this morning, because some of you seem to have an incorrect idea of my status, in this association. Get this fact, and get it correctly! I am your employee, engaged by you, to advise you how to abate boiler house loss and convert it to profit. I have fulfilled my part of the agreement to just the extent that you have individually cooperated with me. I have been just as careful of the expenditure of your money as I would of my own. In no case have I advised you to invest a farthing until I had proven the fact that you could save attractive sums just by revision of your firing methods.

A detailed account of the proceedings of the National Petroleum Association convention at Atlantic City, by staff writers of National Petroleum News, will be found in the Sept. 22nd issue, together with addresses which are not carried in this issue.

Panhandle Daily Output Reaches New High

Staff Special

TULSA, Sept. 11.—Production in the Panhandle fields of Texas increased 2408 barrels per day during the week ending today reaching a new high record of 118,731 barrels per day.

This production came from 415 wells, an average of 286 barrels per well. A week ago there were 399 wells producing 291.5 barrels per well per day.

Virtually all of the increase in production came from Hutchinson county which now has 348 wells producing 110,477 barrels per day.

Following is the production by counties:

County	No. Wells	Daily Average Production
Hutchinson	348	110,477
Carson	48	3,849
Gray	10	3,717
Wheeler	8	653
Potter	1	35
Total	415	118,731
Last Week	399	116,323
Increase	16	2,408

"Pop" Stewart Convalescing

CLEVELAND.—W. R. Stewart, the "Pop" Stewart of the oil industry, is walking about the home of his brother, A. T. Stewart at Montague, Michigan, with the aid of a pair of crutches and a peg leg. "Pop" has just undergone one of the greatest trials of his life. Seventy years old, he has had to have a leg amputated, and the return to health has been somewhat slow. "Pop" lost his leg by reason of being hit by a motorcycle in Chicago some time ago. A bone refused to knit and the leg had to be taken off. "Pop" has been recuperating at the home of his brother, who has the White Lake Oil Co. at Montague.

"Pop" says that as soon as he learns to manipulate the new leg, he will be back in Chicago at his old business.

Donnell, Oliver, Commend Report; Nicholas Calls it Evasion

CLEVELAND, O., Sept. 11

APPROVAL of the report of the Federal Oil Conservation Board is expressed by J. C. Donnell, president of the Ohio Oil Co. and member of the Committee of Eleven of the American Petroleum Institute, and by Earl Oliver, petroleum engineer of Ponca City, who appeared before the oil board at one of its open hearings. L. V. Nicholas, president of the National Petroleum Marketers' Association, calls the report "buck passing."

These statements were in response to telegraphic requests for comment made by National Petroleum News of the Committee of Eleven and other oil men who addressed the board during its open hearings last February. A number from whom expressions were sought were away on vacations or on business trips far from their offices.

"An astonishing, colossal evasion of a public responsibility—'buck passing' (and a first class job of it) is what the Federal Oil Conservation Board's report actually amounts to, in my opinion," said Mr. Nicholas.

"Unless there exists an unpublished agreement between the leaders of the industry and the board that immediate steps are to be taken to put the conservation into actual operation, the report appears to me inexcusable.

"The board's own estimate of proven fields of available crude oil is the most convincing statement yet made of the need for definite and immediate conservation measures. Their estimate reduces our known supply to less than five years at the present rate of increasing consumption.

Report Is Contradiction

"THE board's plea for stimulated search for new fields is in glaring contradiction to their implied belief that no emergency exists under which the government can, by executive order, enforce conservation as a national defense measure.

"Our poorhouses are full of individuals who were confident 'everything would come out all right.' Can a nation afford to be prodigal of its resources and collectively do what it condemns as bad practices in the individual?

"Crude oil is being shamefully wasted as fuel in brutal competition with coal, while cracking and improved refining are making cheaper gasoline, cheaper crude oil, and hastening more wasteful and utter demoralizing exhaustion of an essential necessity.

"Crude oil can, should and must be conserved—its use in competition with coal or whatever coal can be successfully substituted should be forbidden.

"Generalizations concerning gasoline substitutes are as unsatisfactory as they are vague.

"If exhaustion of crude oil resources is justified as a labor-saving device, the members of the committee should please figure out for us where the labor supply to produce the gasoline substitute will come from We venture to assert that to produce sufficient volume of gasoline substitutes from coal would require the labor of over one-quarter of our total working population.

"Oil substitutes have no right to be mentioned unless with them are given the labor factors to be considered.

Substitutes a Myth

"GASOLINE substitutes in any real volume are a myth, from the standpoint of labor requirements alone.

"Why not face these facts immediately and fearlessly?

"Crude oil is a national necessity—it should be conserved, and immediate measures taken to restrict consumption to superior uses; and what constitutes superior use is not debatable if the situation is honestly faced.

"The first step in real conservation is manufacturing efficiency, and to develop real manufacturing efficiency pipe lines must be made common carriers in more than name—refining has no economic right to be the disguise adopted by the producer to get rid of his crude regardless of price.

"Sooner or later the Doherty plan or its equivalent must be adopted."

Donnell Impressed Favorably

MR. DONNELL, who had just returned from an inspection of properties of his company in the Illinois fields, replied as follows:

"I have read the report of the Federal Oil Conservation Board to President Coolidge, dealing with national petroleum conditions, which report has just been released by Secretary Work but have not had sufficient time to permit of a complete analysis of it; therefore, my comment will necessarily have to be based on first impression and I have no hesitancy in stating that I am impressed most favorably.

"That the board was confronted with a gigantic task was a matter of common knowledge, and my personal feeling is that its report as a whole—clear, concise and gleaned as it was from a tremendous mass of data and testimony—is sufficient evidence to the oil fraternity at large that it has not failed in its undertaking.

"Regarding that feature of the report which deals with future crude supply, it is small wonder that the public generally should be alarmed over the prospect of a shortage in this or in any other important commodity, for such an outlook is always most alarming and I am fully in accord with the recommendation that every effort should be made to avert such a calamity.

"However, to the experienced oil operator whose successes or failures have been largely dependent upon the natural deposits underlying that particular territory which he is operating, the future appears somewhat brighter for he has faced many such crises. There was a like outlook back in Pennsylvania and New York in the early days of the industry when with production failing, consumption climbing and the situation appeared most critical, the Trenton Rock Field was brought in; as a matter of fact a glance through the history of oildom reveals many such instances. It may be said in argument that continued conditions have diminished the amount of prospective territory; true enough, but by the same token has there not been a thousandfold increase in the number of companies and individuals engaged in the never-ceasing hunt for new fields? Perhaps this view-point is one simply born of over-optimism but show me a pessimist who has been a successful oil man.

Nor do I interpret the board's report in the light of an intention to discourage this optimistic spirit but rather to give timely warning of an impending crisis and describe conservation as a helpful remedy."

"Sound, Logical Analysis"

"I AM very much pleased with the report," said Earl Oliver, head of the engineering company, Earl Oliver & Co. "In my judgment it is a sound, logical and constructive analysis of a complicated politico-economic problem. The way has been blazed for stabilization and conservation that, if followed, should be beneficial alike to the consuming public and the petroleum industry. I have no patience with the suggestion that stabilization means stagnation, and very much doubt that it will mean higher prices to the consumer.

"On the contrary, the board's recommendations, if adopted, will mean more complete extraction at less duplication of effort, together with elimination of losses through dry holes, misdirected effort and other waste characteristic of frenzied development, all of which should enable a greater certainty of profit to more individual companies in the industry, and yet permit a lower average price to the consumer.

"There will be sufficient competition between pools to pass on to the consumer some of the benefits arising out of increased efficiency, while, on the other hand, it will enable the owners of any given pool to choose the time of extraction in relation to the market situation that best suits the relative extraction cost of that particular pool. This ability to choose the time of extraction should tend to make the production of oil take on more of the aspects of a substantial business venture rather than a game of chance as it must be where competitive drainage conditions dominate.

Changes Must Be Gradual

"OF course, I am highly gratified at the board's position that the particular methods and details are matters properly coming within the industry's initiative. We also realize all these changes will be gradual, progress will be slow, but

this report makes that progress certain and the direction assured. The board and its advisors are to be commended, and the industry and public to be congratulated at the courage displayed in making recommendations based on engineering efficiency with seemingly total disregard of political expediency. Evidently these men had the courage of their convictions, knew where they were headed, and hewed to the line.

"Altogether, the report appears to be a most happy consummation of an important study, or will be if the industry cooperates in the same wholesale manner and spirit as did the Board and its advisors, and there is reason to hope this will be done."

Michigan Jobbers Elect Hughes Secretary

Wayne C. Hughes

CLEVELAND, Sept. 14.—Wayne C. Hughes, who has been field secretary of the Ohio Petroleum Marketers' Association, for the last 18 months, has been elected secretary and treasurer of the Michigan Independent Oil Men's Association. He succeeds James A. Gilmore who has gone to the American Oil Men's Association to fill the post made vacant by the death of H. G. James.

Mr. Hughes began his work with the Ohio association after selling bulk and service station equipment to distributors in the state. When he became secretary only a few jobbers were members in the organization. At the annual meeting last February more than 130 had been enrolled.

Mr. Hughes is a graduate in engineering of Ohio State university.

The September issue of Flash Points, the monthly organ of the Michigan association of which H. H. Ragle, Federal Petroleum Co., Jackson, is president, contains an article eulogistic of both Mr. Gilmore and Mr. Hughes.

Mr. Hughes' successor in Ohio has not yet been selected.

Oil Board's Report Intended as Aid To Congress and to Industry

Staff Special

WASHINGTON, Sept. 14

IT is the hope of members of the Federal Oil Conservation Board that its report, the first section of which was made public a week ago, will accomplish four things, namely:

1. Convince Congress that it can do nothing toward the conservation of oil other than legislate in respect of lands owned by the United States.
2. Convince the oil industry that it can and should regulate itself.
3. Convince the states that they can enact legislation that will cause the orderly development of the oil resources within their borders.
4. Convince the ultra conservationists that they should give the weight of their influence to the doing of things that can be done without undertaking anything that will start a controversy as to fundamental questions of state and federal power.

The report made a week ago is complete as to the subject mentioned. The Board used the word "preliminary" to describe its report in the sense of the first in a series. There is no thought of later adding anything on the topics mentioned in this report.

The second report will pertain to possible substitutes, including the development of the shale possibilities. It is doubtful whether the shale report will be ready much, if any, before the first of the year. The foreign sources of supply of oil will be handled in the third and last section.

Favorable reaction has come to the Board from the whole country. The editorial comment, broadly speaking, is that the Board has done a good piece of work. No comment on the Board's work has come from President Coolidge. That is not surprising. He never was quick on the trigger.

Members of the Board feel strongly that the industry should govern itself. The report is intended to give backing to those in the industry whose efforts have been towards developing as great operating efficiencies as possible under conditions the industry faces today; also those who are willing to undertake the reformation of state statutes that force drilling as soon as the discovery well comes in to allow more orderly and efficient development.

One thing was obvious to the members of the Board. That was that the popular idea is that, every time a big oil man or company proposes anything to hold back on drilling programs, the effort is viewed as restricting production to force up prices beyond reason. It is common language among political speech makers to refer to the industry in terms implying control of it by a "trust." Therefore anything tending to suggest the framing of sane laws is denounced as something to favor the "oil trust."

Not one of the members of the Board is in the slightest sympathy with that sort of talk. Each believes that "the division of crude as between the different kinds of oil products is purely an economic question" which is the very language employed in the Board's report. The hope is that the report will bring about such a sane view of the matter that real progress will be made, progress that will be for the good of the country, even if not aiding anybody's political campaign.

One of the speculations resulting from the promulgation of the report is as to the effect it will have upon the gasoline report the Federal Trade Commission will make in obedience to the Trammell resolution.

Phillips Opens New Pool In Jones County, Tex.

Staff Special—By Telegraph

HOUSTON, Sept. 13—A wildcat test near the town of Trent, in southwestern Jones county, has opened another sand series pool in west Texas. The discovery well has not been finally completed and its real worth is yet to be established.

The well is No. 1 Winters of the Phillips Petroleum Co. in Sec. 19, Block 19, Texas & Pacific Survey. The well's best showing was on Sept. 9 when it made two heads of 20 minutes duration of 41 gravity oil. It had made four heads previously. The total depth is 2510 feet.

When the well first showed for oil it had 200 feet of cavings in the hole. It had been cleaned out to within 50 feet of bottom when the Sept. 9 heads were made. The Phillips company is building five tanks of 500 barrels capacity each to take care of the oil after which final completion will be made.

The new area of production is between Abilene and Sweetwater. It is fully the breadth of a county westward from earlier sand level production in west Texas and an equal distance east of Westbrook and Iatan development which last mentioned bear a relationship to the east rim of the old Permian salt basin of west Texas.

WARREN, PA., Sept. 10.—George P. Brockway, president of the Seneca Oil Works, Warren, Pa., had a narrow escape from death Friday afternoon, when the Buick coupe he was driving was struck by a Pennsylvania switch engine at the company's crossing. Mr. Brockway was unhurt but the car was badly damaged.

Anti-Knock Value and Oxidation of Oils Discussed at Chemists' Meeting

PHILADELPHIA, Sept. 11

DR. GRAHAM EDGAR, chemical director, Ethyl Gasoline Corp., announced discovery of a standard fuel to be used as a reference in determinating the anti-knock values of gasolines at the three-day sessions of the petroleum division of the American Chemical Society in Philadelphia this week.

The reference fuel, in which one of the components is a new octane discovered by Dr. Edgar, is described elsewhere in this issue.

In two other papers anti-knock characteristics of gasoline were dealt with. In several papers oxidation of lubricating oils was discussed from several points of view indicating chemists are giving more thought to this subject.

There were also several papers by engineers of the General Motors Research Corp. in which they dealt with phases of engine performance.

R. R. Matthews, Roxana Petroleum Co., St. Louis was unanimously elected chairman of the petroleum division for the fourth time. Dr. Fred Faragher, research director, Universal Oil Products Co., was elected vice chairman. G. A. Burrell, consulting chemist, Pittsburgh, was re-elected secretary and Dr. C. R. Wagner, Pure Oil Co., was elected a member of the executive committee. Dr. C. O. Johns, Standard Oil Co. of New Jersey, was re-elected to the executive committee.

The dinner of the petroleum division was held Sept. 9 with about 40 members of the division present. At the dinner the question of appointing a lubrication committee from the division to work with similar committees of the American Society of Mechanical Engineers, the National Electric Lamp Association and similar organizations was approved.

The question also was discussed of limiting the number of papers to be given at the meetings in order to allow more time for discussion, and the chairman will work along that line.

Grease Making Discussed

JAMES McKEE, JR., manager of the grease plant, Sun Oil Co., read a paper on the manufacture of lubricating greases. He said that in the Sun plant about half the quantity of animal fat usually used in grease making is replaced by more or less pure naphthenic acids. The result is said to be a great saving in the cost of manufacture and a grease that holds up under high temperature much better than a grease in which fat and petrolem oil alone are used.

This paper is the first, so far as chemists present could remember, in which Sun Oil Co. officials have allowed information to be given out concerning the company's operations. It developed in the discussion of Dr. McKee's paper that naphthenic acids are not on the market generally and if available at all would probably command a prohibitive price.

About the only source of the naphthenic acids used, in Dr. McKee's opinion, is the acid sludge resulting from the treatment of lubricating oil with sulfuric acid.

Much work has been done in Germany to recover naphthenic acids. The results have been published. Possibly some American refineries are recovering naphthenic acids from their sludges also. Little has been published in English on the subject.

Dr. McKee stated that his plant turns out greases for special purposes which hold up under temperatures of 650 to 700°F.

Dr. Gustav Egloff, Universal Oil Products Co., in a paper prepared by himself and his associate, Dr. Jacque C. Morrell, entitled "The Effect of Endpoint on the Anti-Knock Properties of Gasoline," stated that he had found no appreciable difference in anti-knock value, other things being equal, in gasolines having an endpoint range of 390 to 430°F., that is, he found no difference in anti-knock value between a gasoline having an endpoint of 390°F. and one having an endpoint of 430°F.

Anti-Knock Experiments

HIS experiments were made in an engin of a compression ratio of 4.7 to 1 and samples of straight-run and cracked gasolines from Cushing crude and cracked and straight-run gasoline from California crude were used. The knock was measured by the listening method in terms of spark advance. The samples of gasoline used had endpoints of 389°F., 412°F. and 430°F. and the initial boiling points had a variation of about 10°F.

The degrees of knock intensity were designated A B C and D, the first being incipient knocking, B being a little worse, C still a little worse and D violent knocking. Dr. Egloff showed the results of the tests on Cushing straight run gasoline in the following table:

Knock Tendency End Point vs. Spark Advance

End Point	389F.	412 F.	430F.
Spark Advance (Degrees above dead center)			
A	5.5	6	6
B	9	9.5	9
C	13.5	15	15
D	19	19	19

With Cushing cracked gasoline, he said, the D knock was found at 23, 22 and 22 degrees of spark advance respectively with 389°F., 412°F and 430°F. endpoint gasolines. Dr. Egloff criticised the industry for putting out needlessly light gasolines under the mistaken impression, he said, that the more volatile the gasoline the higher its anti-knock quality.

T. A. Boyd, chief of the fuel section, General Motors Research Corp., took issue with Dr. Egloff, saying that it has been thoroughly established that in the paraffin series of hydrocarbons, the heavier members knock worse than the light ones and that the tendency of octane to knock is about 18 per cent greater than that of heptane and so on.

Dr. Egloff in another paper by himself and Dr. Morrell entitled "Effect of Treating on the Anti-Knock Properties of Cracked Gasoline," expressed his opinion that cracked gasolines in general were being overtreated with sulfuric acid, with loss of part of the anti-knock value.

Urges Wide Tolerance

HE said he believed the government specification of 0.15 per cent as the maximum allowable percentage of sulfur in gasoline was arbitary and urged that this limit be increased. This proposal seemed to meet little favor among other chemists because of the possibilities of trouble from too high a sulfur content in the fuel.

Dr. Egloff said that on some California gasoline with high sulfur content a volume loss of 20 to 30 per cent results from treating the gasoline to bring it within the 0.15 per cent sulfur limit. He said treating losses on gasoline are threefold: loss of volatility through removal of the lightest ends; volume loss, and loss in anti-knock value.

C. C. Buechler, Standard Oil Co. of Indiana, Casper, Wyo., read a paper by himself and S. H. Diggs entitled "A Direct Refractometer Method for the Determination of Oil in Paraffin Wax."

The group of papers on oxidation included the following: Mechanism of Static Oxidation," by Brian Mead, A. C. Phelps, C. R. Washburn, and J. P. Warner; "Prevention by the Use of Anti-Oxidants," by Brian Mead and W. C. McCabe, and "An Investigation of the Changes in Some of the Physical and Chemical Properties of Four Unblended Mineral Oils Produced by Prolonged Treatment with Ozone," by M. V. Dover and J. H. Cromwell.

In the first two papers were described the progress of oxidation in mineral oils and the extent to which it can be retarded by the use of certain anti-oxidants. Miss Dover, a faculty member of the University of Missouri, showed the results of treating unblended oils with ozone for periods of four, eight and 12 hours. The oxidation, accomplished by bubbling ozone through the oil, gave products with considerably changed characteristics. The treated oils, in general, possessed higher viscosity with lower coefficient of friction, which is the result oil technologists seek.

"30 carloads have left for *the EAST*"

A FIRM of Columbus, Ohio, commission merchants purchases from growers over a wide area and distributes all the way to the Atlantic. All buying is done from Columbus; all shipments are consigned to that point. As the cars are started, Columbus is informed of the car numbers, weight, size, class and price of the fruit. Then, from Columbus, by long distance calls, the products are sold in the various market cities—and the cars diverted and re-routed, also by telephone!

AT TIMES 30 carloads of melons will leave Colorado or California for the East—and be sold and re-routed by telephone while rolling. Thousands of businesses are finding that the telephone brings a development that would be impossible by any other means. Territories are covered that the salesmen, traveling in person, could not reach. Buying and selling costs are kept low that otherwise would become prohibitive. A degree of speed is reached in selling and distribution that otherwise would be unattainable. Wherever it is desirable to increase business activity and lessen the cost, there long distance calls have a place.

Is there a possibility that the telephone might be used still more effectively in your business? Have you lately taken stock of the value to your business of a communication system that embraces 17,000,000 telephones and reaches 70,000 towns? How many expensive trips each month might be saved? How much valuable time out of the office might be saved by occasional minutes over the long distance lines? Who is there important enough to see who cannot be reached by Long Distance?

Ask our Commercial Department in your city to help you take an inventory of the various ways Long Distance can develop your business. Such a study and report will gladly be made free. And why not make, now, that call that may pay for itself many times over? Distance is no obstacle. Tell us whom you would like to talk with, now. . . . . *Number, please?*

BELL LONG DISTANCE SERVICE

Compilation Of Mid-Continent Refinery Operations

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National Petroleum News

Mid-Continent Refinery Operations Week Ended Sept. 10 (By Telegraph)

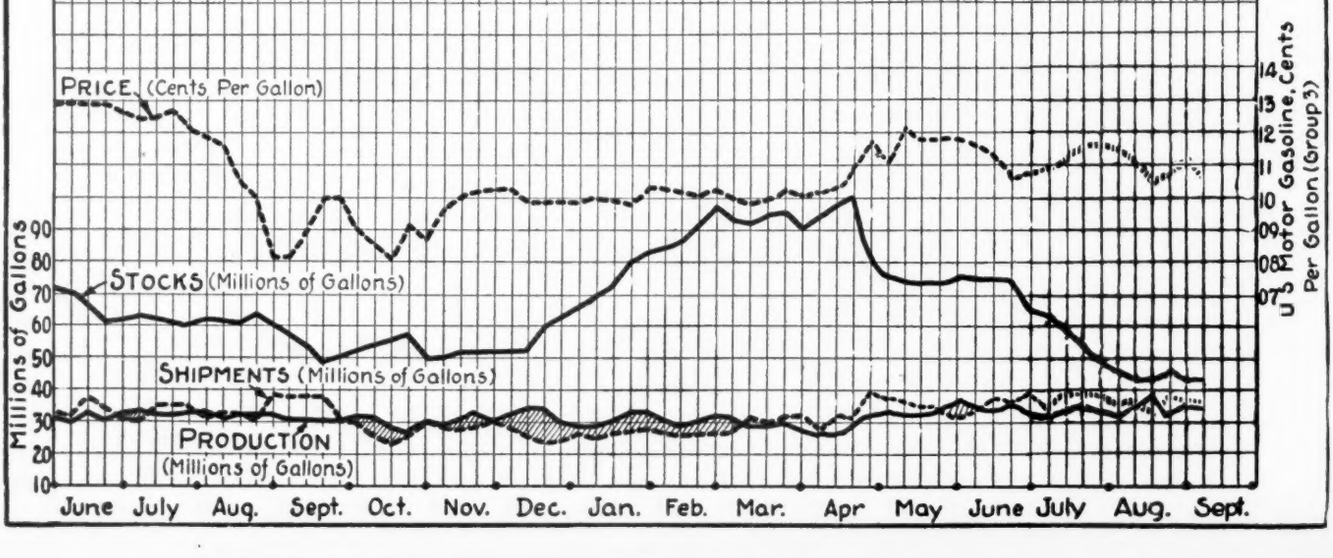
	Kansas	Oklahoma	North & Cent. Texas	North La.-Ark.	Totals Week Ended Sept. 10	Totals Week Ended Aug13
Plants Reporting	23	46	41	14	124	124
Da. Cap. (Bbls.)	98,300	165,900	144,300	53,700	462,100	462,100
Da. Av. Crude Runs	58,731 — 3.5	106,580 + 0.5	66,127 + 1.2	52,016 — 7.8	283,454 — 1.8	287,403
Da. Av. Other Oils	7,824 + 4.2	—3,675	4,670 —12.3	1,286 — 1.7	20,105 —42.2	9,168
GASOLINE—Gallons						
Stocks, Sept. 3	8,544,813	20,903,074	11,791,395	2,703,460	43,942,742	47,719,872
Prod. 9-3-9-10	9,128,788 — 5.3	15,702,700 + 1.3	7,989,719 +11.4	3,596,598 —10.5	36,417,805 + 0.3	35,748,276
Ship. 9-3-9-10	8,673,407 —10.1	16,087,596 + 2.8	8,427,762 + 0.2	4,436,150 — 1.8	37,624,915 — 1.6	37,325,982
Stocks, Sept. 10	9,000,194 + 5.3	20,518,178 — 1.8	11,353,352 — 3.7	1,863,908 —31.1	42,735,632 — 2.7	46,142,166
Ratio Sales to Prod	95.0%	102.5%	105.5%	123.3%	103.3%	104.4%
KEROSENE—Gallons						
Stocks, Sept. 3	2,194,039	3,150,299	1,791,782	509,036	7,645,156	9,380,832
Prod. 9-3-9-10	1,582,216 — 9.1	2,389,760 —13.8	1,521,184 —17.6	527,248 + 1.4	6,020,408 —12.5	5,535,486
Ship. 9-3-9-10	1,645,078 —73.3	1,997,234 —26.9	1,384,074 —12.6	591,074 —30.8	5,617,460 —19.1	6,374,881
Stocks, Sept. 10	2,131,177 — 2.9	3,542,825 +12.5	1,928,892 + 7.7	445,210 —12.5	8,048,104 + 5.3	8,541,437
Ratio Sales to Prod	104.0%	83.6%	91.0%	112.1%	93.3%	115.2%
STOVE DISTILLATE—Gallons						
Stocks, Sept. 3	4,738,375	3,742,796	852,026	191,478	9,524,675	8,682,927
Prod. 9-3-9-10	556,731 —15.7	424,294 — 2.2	254,759 —26.1	23,268 —27.3	1,259,052 —14.2	1,536,123
Ship. 9-3-9-10	644,227 +44.5	215,404 +130.2	877,616 +225.1	29,358 —55.4	1,766,605 +101.8	1,031,764
Stocks, Sept. 10	4,650,879 — 1.8	3,951,686 + 5.6	229,169 —73.1	185,308 — 3.2	9,017,122 — 5.3	9,187,286
Ratio Sales to Prod	115.7%	50.8%	344.5%	126.2%	140.3%	67.2%
GAS OIL—Gallons						
Stocks, Sept. 3	8,054,231	31,590,082	9,410,351	2,351,962	51,406,626	53,420,281
Prod. 9-3-9-10	1,884,460 — 0.5	757,718 —45.4	836,238 +28.4	3,332,309 +31.8	6,810,725 + 5.4	5,001,273
Ship. 9-3-9-10	1,409,500 —57.2	38,560 —97.5	398,615 +41.8	2,716,065 — 6.7	4,562,740 —43.2	4,820,435
Stocks, Sept. 10	8,529,191 + 5.9	32,309,340 + 2.3	9,847,974 + 4.7	2,968,206 +26.2	53,654,611 + 4.4	53,601,119
Ratio Sales to Prod	74.8%	5.1%	47.7%	81.5%	67.0%	96.4%
FUEL OIL—Gallons						
Stocks, Sept. 3	9,821,189	66,786,443	19,630,172	7,274,854	103,512,658	99,196,497
Prod. 9-3-9-10	5,184,276 + 3.3	7,192,400 —0.003	8,151,738 + 1.5	7,610,339 —15.8	28,138,753 — 3.9	31,683,773
Ship. 9-3-9-10	4,905,373 — 8.2	7,709,693 +10.0	8,203,393 +10.7	4,276,140 —59.8	25,094,599 —17.4	28,342,690
Stocks, Sept. 10	10,100,092 + 2.8	66,269,150 — 0.8	19,578,517 — 0.3	10,609,053 +45.8	106,566,812 + 2.9	102,537,580
Ratio Sales to Prod	94.6%	107.2%	100.6%	56.2%	89.2%	89.5%

+ or — columns are % of change over previous week.

Gasoline Produced by Various Methods, Week Ended Sept. 10

	Kansas	% of Total	Oklahoma	% of Total	Texas	% of Total	Louisiana-Arkansas	% of Total	Total	% of Total
Straight Run	6,247,284	68.4	10,100,722	64.3	6,284,730	78.7	900,230	25.0	23,532,966	64.6
Cracked	2,460,244	27.0	4,576,002	29.2	1,454,837	18.2	2,372,758	66.0	10,863,841	29.8
Natural	421,260	4.6	1,025,976	6.5	250,152	3.1	323,610	9.0	2,020,998	5.6
Total	9,128,788		15,702,700		7,989,719		3,596,598		36,417,805	

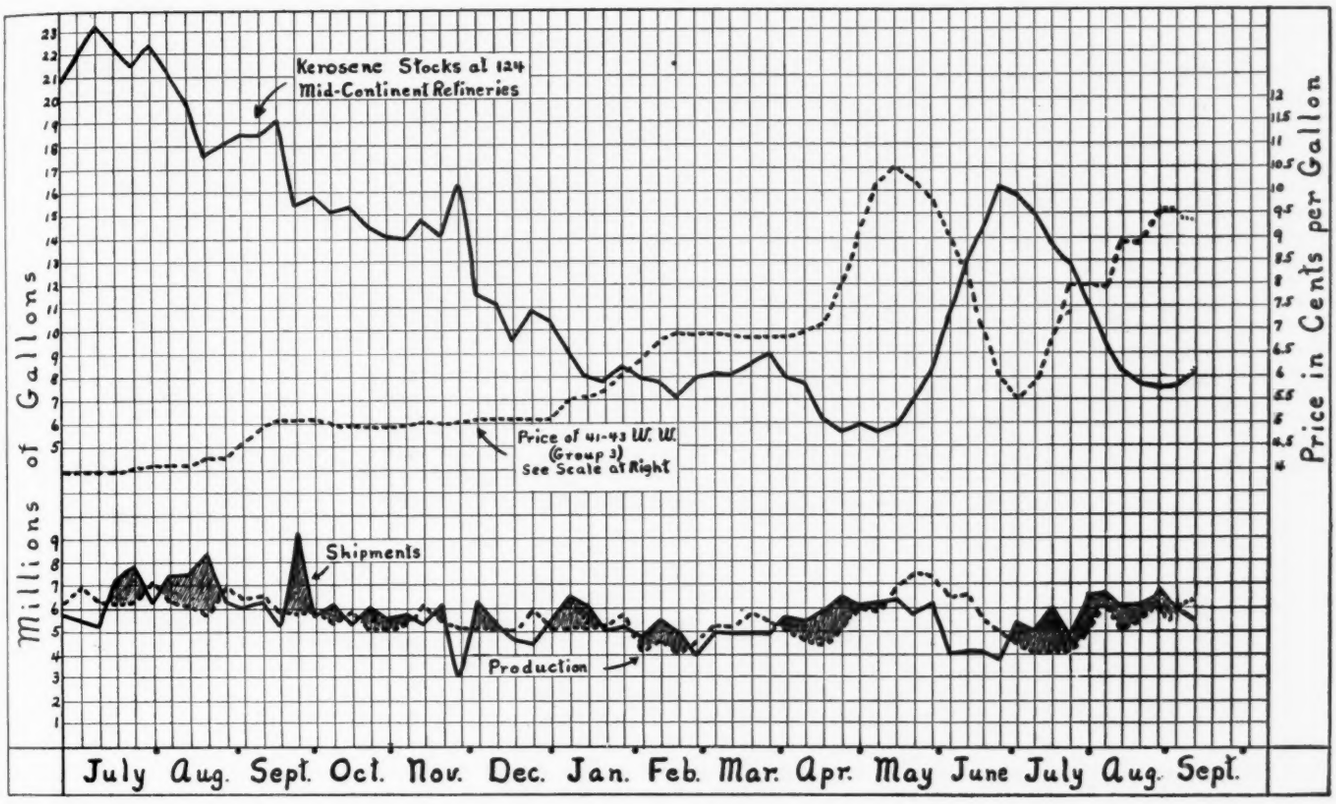
GASOLINE


PRICE (Cents Per Gallon)
STOCKS (Millions of Gallons)
SHIPMENTS (Millions of Gallons)
PRODUCTION (Millions of Gallons)
Millions of Gallons
U.S. Motor Gasoline, Cents Per Gallon (Group 3)
June July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr May June July Aug. Sept.

Barometer of Mid-Continent Refinery Market—Week Ending Sept. 10

Charted ***Course of Prices, Production, Shipments, Stocks of Principal Refined Products, Week by Week, From Reports Made by 124 Plants to National Petroleum News***

KEROSENE


Kerosene Stocks at 124 Mid-Continent Refineries
Price of 41-43 W. W. (Group 3) See Scale at Right
Shipments
Production
Millions of Gallons
Price in Cents per Gallon
July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug. Sept.

Further Drafts Made on Stocks of Gasoline

Staff Special By Telegraph
TULSA, Sept. 14

SHIPMENTS of gasoline from 124 Mid-Continent refineries continued at a high level in the week ended Sept. 10, according to operation statistics gathered by National Petroleum News. These shipments caused a further reduction in reserves totaling 1,200,000 gallons and stocks held by reporting plants on Sept. 10 were 42,735,632 gallons. At the rate of shipments maintained during the week stocks represented a fraction less than eight days' supply.

Total shipments from all plants were 37,624,915 gallons, a volume only 600,000 gallons less than the large movement in the week ended Sept. 3. In the four weeks ended Sept. 10 gasoline shipments totaled 149,411,855 gallons and production 146,005,321 gallons. Stocks were thus reduced 3,406,534 gallons during the four weeks. Because of the present low stage of stocks in this area it is to be expected that any future reductions will be small.

Runs of fresh crude to refiners' stills were reduced 5000 barrels on the daily average during the week to an average of 283,454 barrels. Net charges of partly refined oils to stills were reduced 7400 barrels daily average.

Shipments of kerosene fell sharply to 5,617,460 gallons and the first addition to stocks since the last week in June was reported. Production of kerosene was reduced 800,000 gallons and stocks increased 400,000 gallons. Kansas, and Louisiana-Arkansas refiners drew on kerosene stocks, and Oklahoma and north Texas plants added to their reserves.

Shipments of stove distillate were doubled, amounting to 1,766,605 gallons while production was reduced 200,000 gallons to 1,259,052 gallons. Stocks were reduced 500,000 gallons to 8,048,104 gallons.

Fuel oil stocks at Oklahoma and north Texas plants were reduced somewhat during the past week but a substantial addition was made in north Louisiana and Arkansas and a small addition in Kansas. Total stocks at the 124 plants were increased 3,000,000 gallons to 106,556,812 gallons.

Summary for the Month

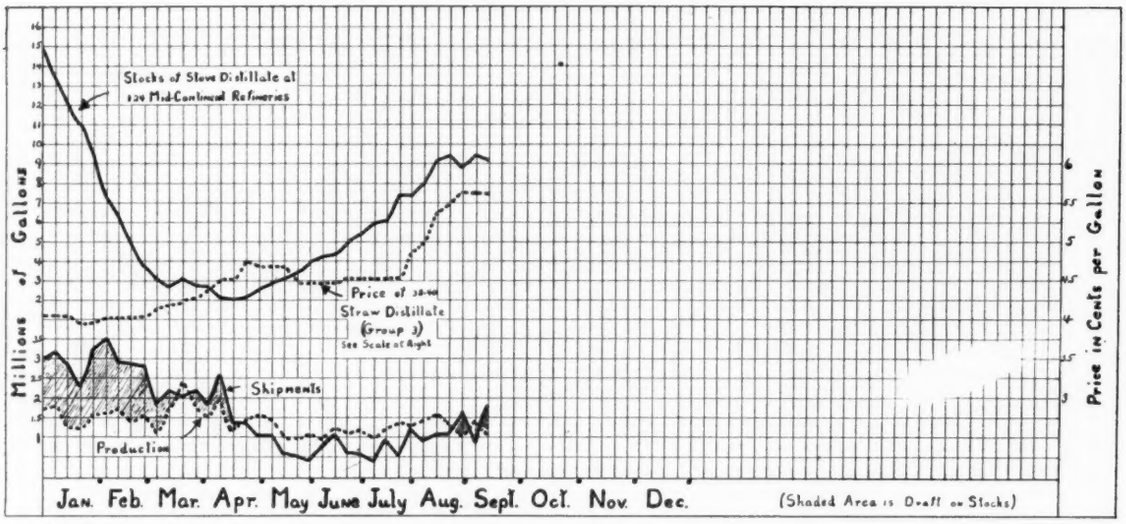
Production and shipments, all reporting refineries, for four weeks ended Sept. 10. Change in stocks figured from Aug. 13.

	Gallons
Gasoline	
Production	146,005,321
Shipments	149,411,855
Net change in stocks	—3,406,534
Ratio sales to production	102.3%
Kerosene	
Production	24,703,184
Shipments	25,196,517
Net change in stocks	—493,333
Ratio sales to production	102.0%
Stove Distillate	
Production	5,311,748
Shipments	5,481,912
Net change in stocks	—170,164
Ratio sales to production	103.2%
Gas Oil	
Production	23,531,778
Shipments	23,478,286
Net change in stocks	+53,492
Ratio sales to production	99.8%
Fuel Oil	
Production	122,145,094
Shipments	118,125,862
Net change in stocks	+4,019,232
Ratio sales to production	96.7%

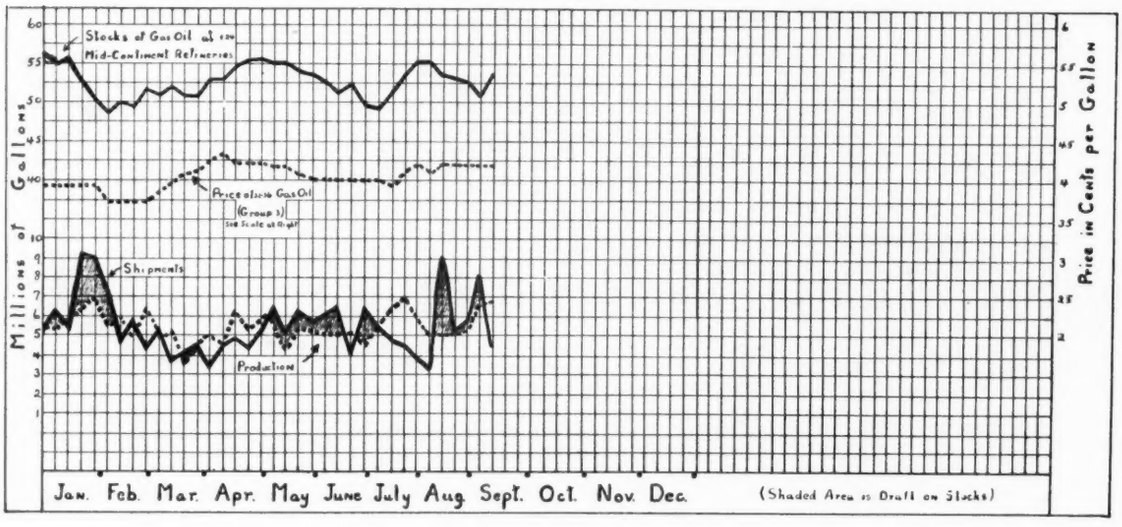
Barometer of Mid-Continent Refinery Market—Week Ending Sept. 10

Charted Course of Prices, Production, Shipments, Stocks of Principal Refined Products, Week by Week, From Reports Made by 124 Plants to National Petroleum News

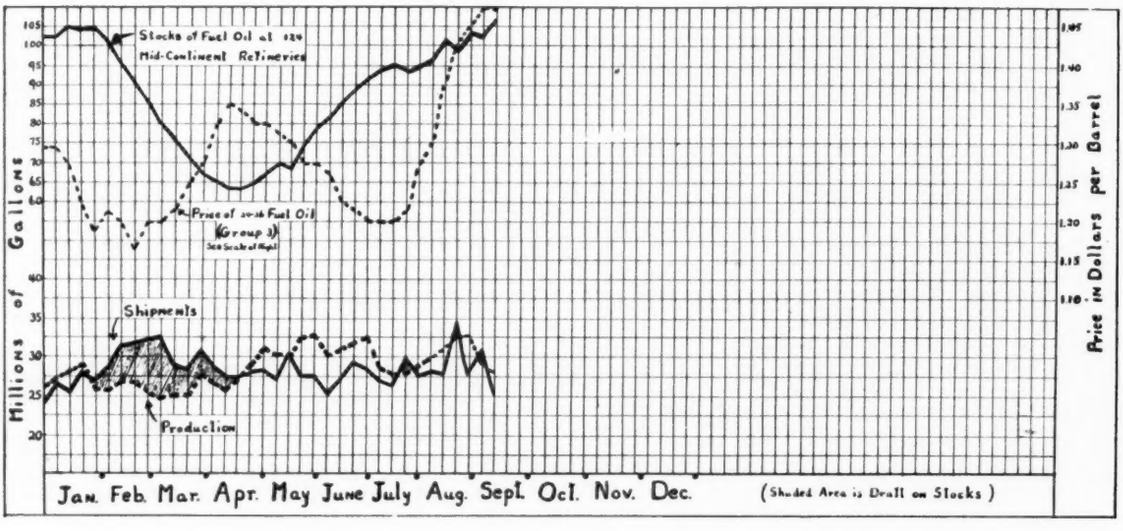
STOVE DISTILLATE


Stocks of Stove Distillate at 124 Mid-Continent Refineries
Price of 28-66 Straw Distillate (Group 3) See Scale at Right
Shipments
Production
Millions of Gallons
Price in Cents per Gallon
Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.
(Shaded Area is Draft on Stocks)

GAS OIL


Stocks of Gas Oil at 124 Mid-Continent Refineries
Price of 32-36 Gas Oil (Group 3) See Scale at Right
Shipments
Production
Millions of Gallons
Price in Cents per Gallon
Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.
(Shaded Area is Draft on Stocks)

FUEL OIL


Stocks of Fuel Oil at 124 Mid-Continent Refineries
Price of 20-36 Fuel Oil (Group 3) See Scale at Right
Shipments
Production
Millions of Gallons
Price in Dollars per Barrel
Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.
(Shaded Area is Draft on Stocks)

—and They'll Save Money for You!

The durability of Wheaton Products—their rugged strength that stands almost impervious to time and wear—is the result of the *Quality* which is built into every Wheaton faucet, valve, joint, coupling, filler, nozzie and connection. And this *Quality*, for which Wheaton Products have long been famed, has enabled them to save money for the hundreds of Wheaton users—*and they'll save money for you!* Send for a sample of any Wheaton Product. Test it for 30 or 60 days, and, if it does not prove wholly satisfactory, you may return it for full credit or refund. Also, write today for illustrated catalog containing full information about all the Wheaton Products.

Type K Barrel Faucet

Type 60 Filling Pipe Cap

Single Swing Joint

Double Swing Joint

Tank Car Swivel Reducing Connection

Type A Tank Truck Faucet

Type B Tank Truck Faucet

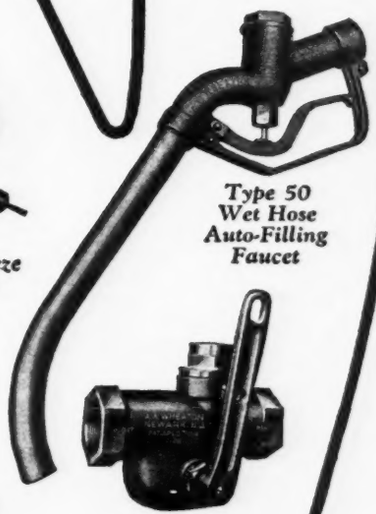
Type 24 Tank Truck Faucet

Anti-Freeze Valve

Type 12 Gooseneck Open Hose Nozzle

Type 36 Quick Hose Coupling

Type 25 Loading Valve



Type 50 Wet Hose Auto-Filling Faucet

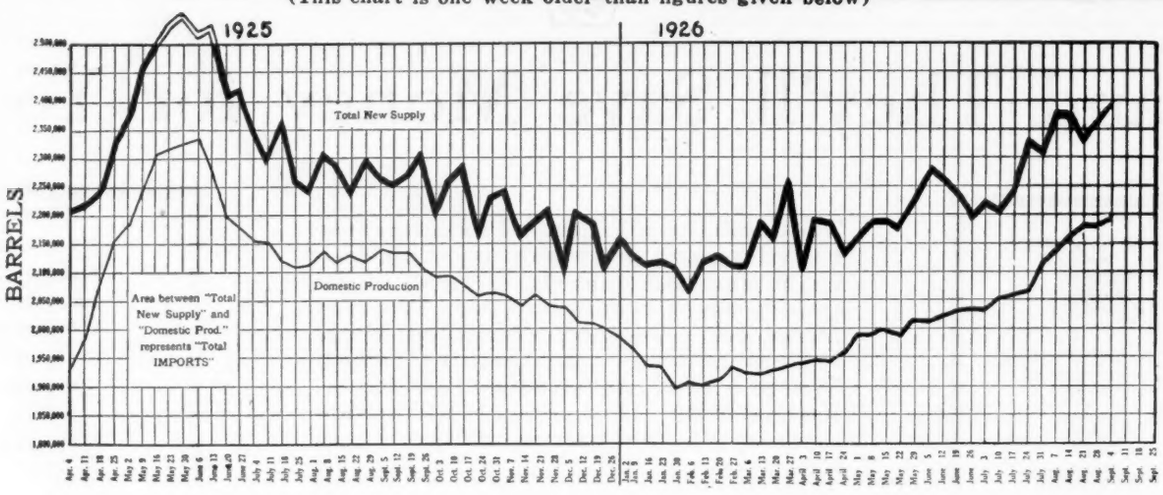
Type 26 Loading Valve

A. W. WHEATON BRASS WORKS
NEWARK, N. J.

Wheaton

Daily Average Crude Oil Production and Imports

(This chart is one week older than figures given below)



Daily average gross crude output of United States, by fields, for week ending with dates given below, as compiled by American Petroleum Institute.

Production Summary

(Daily average figures for week ending Sept. 11, in barrels, as compiled by American Petroleum Institute.)

	Sept. 11	Sept. 4
East of Rockies	1,585,550	1,595,300
Decrease		9,750
Total U. S.	2,184,350	2,196,300
Decrease		11,950
Crude Oil Imports	174,143	200,285
Decrease		26,142
Total Crude Supply	2,358,493	2,396,585
Decrease		38,092

OKLAHOMA

North Braman	9,950	10,900
South Braman	7,950	8,050
Backwell	4,200	4,250
Hubbard	2,800	2,100
Thomas	2,350	1,850
Tonkawa	40,650	39,700
Garber	29,450	31,400
Burbank	49,100	48,600
Osage, outside Burbank	34,250	34,300
Watchorn	2,650	2,850
Cushing	21,550	21,550
Yale Jennings	12,850	12,850
Davenport	6,350	6,700
Bristow-Slick	27,650	27,850
North Okmulgee	17,450	17,400
Lyons-Deaner	3,900	3,950
Stroud	2,100	2,000
Cromwell	15,650	15,900
Papoose	10,500	10,250
Wewoka	30,450	32,350
Duncan district	7,500	7,500
Graham	9,550	10,000
Fox	5,800	5,800
Healdton	14,850	14,850
Hewitt	11,600	11,550
Spindletop	17,400	15,650
Others	66,800	66,950
Total Oklahoma	465,300	467,100
Decrease		1,800

KANSAS

Greenwood County	44,700	44,800
Florence-Covert	2,000	1,950
Peabody-Elbing	4,100	4,100
Eldorado-Towanda	13,850	13,900
Augusta-Fox-Bush	4,800	4,850
Rainbow Bend	4,300	4,350
Russell	5,400	5,500
Others	33,600	33,500
Total Kansas	112,750	112,950
Decrease		200

NORTH LOUISIANA

Homer	5,600	5,500
Haynesville	9,300	9,500
Caddo, light	10,450	9,850
Caddo, heavy	2,900	3,000
De Soto, Red River	4,150	4,150
Elm Grove	550	550
Bellevue	2,100	2,000
Cotton Valley	7,350	7,350
Urania	13,550	14,900
Total North Louisiana	55,950	56,800
Decrease		850

ARKANSAS

	Sept. 11	Sept. 4
El Dorado	6,850	7,000
Smackover, light	14,750	14,900
Smackover, heavy	120,400	122,600
Stephens	1,750	1,850
Nevada	2,000	2,000
Lisbon	8,500	8,600
Total Arkansas	154,250	156,950
Decrease		2,700

NORTH TEXAS

Burkburnett	11,050	11,200
Electra	16,500	16,000
Iowa Park and K-M-A	4,400	4,400
Wilbarger	13,900	14,000
Hutchinson County	110,500	108,500
Balance Panhandle	8,250	7,550
Petrolia	600	550
Archer County	30,000	30,500
Others	4,650	4,600
Total North Texas	199,850	197,300
Increase		2,550

EAST CENTRAL TEXAS

Mexia	11,500	11,700
Currie	800	800
Richland	1,500	1,500
Corsicana-Powell	26,250	26,700
Wortham	6,850	6,900
Nigger Creek	18,000	19,200
Total East Central Texas	64,900	66,800
Decrease		1,900

WEST CENTRAL TEXAS

Stephens County	11,050	11,300
Eastland County	5,600	5,750
Desdemona	1,750	1,750
Young County	6,100	6,300
Brown County	12,450	9,800
Palo Pinto County	450	450
Callahan County	4,200	4,200
Shackelford County	7,300	8,900
Reagan County	28,200	28,450
Crane and Upton Counties	9,250	8,950
Others	6,800	8,350
Total West Central Texas	93,150	94,200
Decrease		1,050

SOUTHWEST TEXAS

	Sept. 11	Sept. 4
Luling	21,700	22,000
Laredo District	18,500	18,000
Somerset	2,000	2,000
Lytton Springs	3,950	4,050
Piedras Pintas	150	150
Others	500	500
Total Southwest Texas	46,800	46,700
Increase		100

GULF COAST

Goose Creek	9,900	10,100
Hull	17,950	16,500
Saratoga	1,300	1,350
Blue Ridge	1,800	1,500
Damon Mound	800	850
Batson	1,300	1,350
West Columbia	8,750	9,200
Humble	3,900	4,000
Pierce Junction	2,850	2,300
Sour Lake	5,250	5,350
Spindletop	89,250	93,200
Orange County	8,100	8,250
Edgerly	1,000	1,000
Evangeline	1,100	1,100
Vinton	6,300	6,350
Lockport	4,000	4,000
South Liberty	4,500	4,600
Big Creek	2,550	1,850
Boling	2,350	1,700
Others	2,800	2,950
Total Gulf Coast	175,750	177,500
Decrease		1,750

ROCKY MOUNTAIN

Wyoming

	Sept. 11	Sept. 4
Salt Creek	44,200	46,700
Grass Creek	3,150	3,100
Elk Basin	850	850
Big Muddy	3,400	3,300
Lost Soldier	5,400	5,150
Rock River	2,800	2,700
Teapot Dome	900	1,300
Others	5,000	5,250
Total Wyoming	65,700	68,350
Decrease		2,650

Montana

Cat Creek	2,700	2,700
Sunburst	25,000	25,000
Others	250	200
Total Montana	27,950	27,900
Increase		50

Colorado

Moffat (Craig)	3,400	3,300
Fort Collins	3,800	3,800
Florence	500	500
Others	950	900
Total Colorado	8,650	8,500
Increase		150

New Mexico

Artesia	3,000	3,000
Hogback	700	700
Rattlesnake	850	1,050
Total New Mexico	4,550	4,750
Decrease		200
Total Rocky Mountain	106,850	109,500
Decrease		6,250

CALIFORNIA

Santa Fe Springs	48,000	47,500
Long Beach	96,500	98,000
Huntington Beach	44,500	45,500
Torrance	27,500	28,000
Dominguez	21,500	22,000
Rosecrans	13,500	13,500
Inglewood	43,000	44,500
Midway-Sunset	94,000	94,500
Ventura Avenue	47,800	47,500
Others	162,500	160,000
Total California	598,800	601,000
Decrease		2,200

EASTERN

(Including Ill., Ind., Ky., Ohio, W. Va., Pa., and N. Y.)	110,000	109,500
Increase		500

Seminole Area Scene of Big Campaign With 171 Operations Under Way

Staff Special

TULSA, Sept. 11

THE Seminole area still holds the spotlight in the stage of Oklahoma production although during the past week no new wells have been completed in that busy section of the state. As a matter of fact no new wells have been brought in in either Oklahoma or Kansas which are out of the ordinary run of business.

During the week ending Sept. 8, producers began 63 new operations in townships 9-6 and 10-6, the Seminole area. This brings the total in the two townships up to 171.

Production of the Seminole field from the two Wilcox sand wells and 16 Hunton lime wells was increased 1715 barrels per day to an average of 17,345 barrels.

This increase may be attributed largely to work which has been done on the big Independent-Garland well to increase its production. On Sept. 8 the operators found the hole full of cavings to a depth of nine feet, almost to the top of the sand when clean-out operations were begun. Work was carried on carefully to guard against deepening the hole and the bit was not allowed to go within eight inches of the bottom. The well responded quickly to the cleaning, jumping up to 330 barrels per hour.

TULSA, Sept. 11.—During the week ended Sept. 8, 63 new opertions were begun in two townships in the Seminole area, Seminole county, Okla. Divided among operators, the new work is as follows: Magnolia, 1; Sorey-Schwartz, 1; Prairie, 5; Seawright, et al, 1; Gypsy-Prairie, 1; Carter, 8; Amerada, 5; Independent, 2; Indian Territory Illuminating Oil Co., 14; Tidal, 7; Barnsdall, 2; Gypsy, 11; Independent-Garland, 2; Independent - Interocean, 1; Empire, 1; Turman, et al, 1.

Output Boosted by Cleaning

IN the 24 hours ending Sept. 8, production of the well was 5363 barrels while on the ninth this increased to 7092 barrels although the hole was not cleaned until late in the afternoon. The following day the well produced 7783 barrels and during the 24 hours ending at 7 A. M. today, Sept. 11, the production was still up to 7776 barrels. Thus far there has been no trace of water produced with the oil and the temperature has remained about constant.

By its remarkably sustained production the Independent-Garland well apparently is destined to take its place on the honor roll of the state's most prolific Wilcox sand wells. Since it was drilled in on July 17, the well has produced 281,803 barrels of oil, an average of 5032 barrels per day for 56 days.

The banner Wilcox sand well for all time in Oklahoma is the Wentz Oil Corp.'s No. 45 McKee in the Tonkawa field drilled in on August 3, 1924. This well reached a maximum production of 10,472 barrels per day and up to Sept. 1 of this year had produced 1,582,332 barrels of high gravity oil.

Shroeder Biggest in Garber

IN the Garber field Roxana Petroleum Corp. had the most prolific deep sand well in its No. 2 W Shroeder which was drilled in on Aug. 15, 1925. The well reached a maximum production of 10,123 barrels per day and on Nov. 20 had declined to 7337. At that time it had produced 780,000 barrels of oil, an average of 6200 barrels per day for 97 days. Up to the first of August this year the well produced 851,857 barrels of oil.

Like the Tonkawa field, Garber had a number of wonder wells. Sinclair Oil & Gas Co.'s No. 20 Hartley has produced 587,700 barrels to date, No. 19

Completions in North Louisiana and Arkansas, Week Ending Sept. 9

Louisiana—Urania—LaSalle & Winn parishes

Company	Well	Location	Depth	Yield
Allen et al	Allen No. 1	23-10-1E	1515	350
O. W. Clarke, trustee	Tullos No. 5	23-10-1E	1506	50
N. C. Hudson, trustee	Urania No. 1	6-10-2E	1567	dry aband.
Nat. Gas & Fuel Corp.	Russell A-4	26-10-1E	1554	100
Pima Oil Co. (Formerly Beckman & Freeman)	Urania B-5	7-10-2	1530	45
Pima Oil Co.	Urania B-8	7-10-2E	1530	dry aband.
H. T. Taylor, trustee	Hardtner No. 3	19-10-2E	1580	dry aband.
Yeary & Bristol	Urania No. 4	8-10-2E	1530	50
LaSalle parish—Jena				
Tunica Pet. Co	L. & A. No. 4	15-9-3E	2180	dry aband.
Urania-Grant & LaSalle parishes				
Bradley & Cazort	Holmes No. 1	16- 9-1E	1615	salt water abn
Holmes et al	Holmes No. 1	17- 9-1E	1630	dry aband.
H. L. Hunt	Griswold No. 3	3- 9-1E	1512	50
Tunica Pet. Co	L. & A. No. 31	25- 9-1E	1665	dry aband.
George W. Weatherbee	Urania A-3	2- 9-1E	1499	200
Caddo parish—Caddo district				
Dixie Oil Co. (Standard of Ind.)	Muslow No. 17	7-20-15	2263	15
Double H Oil Co.	Spell No. 8	15-21-15	1736	20
Morris Drilling Co.	Pala Oil Co. Fee No. 1	1-20-16	2240	15
Page & Caldwell	Hobbs No. 1	29-21-15	2250	dry aband.
Ramsey et al	Muslow Oil Co. No. 1	32-21-15	2100	dry aband.
Tholl Oil Co.	Bashara No. 11	23-21-15	1711	20
Victor Wenzel	Thomas No. 1	15-20-15	2207	400
Gulf Refining Co.	Ferry Lake No. 250	29-20-16	2395	dry junked
Gulf Refining Co.	Ferry Lake No. 251	15-20-16	2260	50
Gulf Refining Co.	Levee Board U-7	16-20-16	2285	100
Bossier parish—Bellevue				
Gulf. Refining Co.	Bliss et al A-21	15-19-11	425	15
Bossier parish—Belcher				
Benton Syndicate	Bulkley No. 1	9-20-13	1475	salt water abn.
Bossier parish—Taylor				
Woodley & Collins	Antrim No. 1	4-21-11	3006	salt water abn.
Morehouse parish				
Feaset, trustee	Archer No. 1	22-20-4E	2153	40 mil ft gas
Ouachita parish				
Palmer Corpn.	J. Cole Heirs No. 3	43-19-4E	2175	6 mil ft gas
Tensas parish				
Spence & Rhodes	Somerset No. 1	29-14-12	2538	dry aband.
East Texas—Marion County				
Gulf Refining Co.	Potter No. 5 Robt. Potter HRS		2935	dry aband.
Harr'son County				
J. R. Bahan	C.M. Abney No. 2 J.J. Blair HRS		1948	20 mil ft gas
Panola County				
Thomason et al	Listen No. 1 S.H. Hardin HRS		2520	salt water abn.
Arkansas—Nevada County				
Fruen et al	Graves A-1	2-14-21	1085	dry aband.
Humble O. & R. Co.	Ellis A-3	2-14-21	1165	150
Stephens				
Magnolia Pet. Co	Maggie Watson No. 5	31-15-19	2169	10
Columbia County—McNeil district				
Gordon & Folwell	Jones No. 7	1-16-20	2252	15
Union County—Upland district				
Sun Company	Brown No. 9	8-18-15	3652	junked aban
Lisbon				
H. L. Hunt	H. O. Murphy No. 8	4-17-16	2154	50
Lion O. & R. Co.	Mitchell A-1	17-17-16	2124	15
Lion O. & R. Co.	Mitchell A-10	17-17-16	2137	20
Rovenger Oil Corp.	Dumas No. 8	9-17-16	2105	25
Sothern Oil Purch. Co.	Slaughter B-4	3-17-16	2095	20
Gulf Refining Co.	W. E. Patterson et al No. 1	20-17-16	2174	20
Smackover				
Gulf Refining Co.	Umstead A-20	33-15-15	3105	dry aband.
Gulf Refining Co.	Umstead A-21	33-15-15	2370	80
Gulf Refining Co.	Murphy-Hardy No. 39	5-16-15	2370	150
Gulf Refining Co.	Murphy-Hardy No. 40	3-16-15	2385	200
Gulf Refining Co.	L. Werner S.M.Co. No. 47	6-16-16	2276	15
Crosby et al	Cook No. 2	16-16-15	1065	junked aband.
Lion O. & R. Co.	Hardy-Murphy No. 2	9-16-15	2410	40
Nat. Gas & Fuel Corp.	Lawton R-6	10-16-15	2435	salt water abn.
Nat. Gas & Fuel Corp.	Lawton R-4	10-16-15	2453	junked aband
Ohio Oil Co	Pate No. 11	10-16-15	2650	6 mil ft gas
Peer Oil Co.	Cook No. 7	17-16-15	2660	25

Completions in Oklahoma and Kansas, Week Ending Sept. 11

OKLAHOMA

Caddo County

Company	Well No.	Location	Depth	Initial Prod.
Magnolia	2	NWc 5-5-9 E	2348–2382	6

Canadian County

Revelle	1	NEc 34-13-9 W	T. D. 3680	Dry

Carter County

Magnolia	6	SEc NE SE 33-1-3 W	2238–2870	130
Humble	5	SWc SE NE 33-1-3 W	2448–2662	345
Magnolia	4	SWc NE SW 34-1-3 W	2925–2950	442
Franklin et al.	4	SEc NW 3-2-3 W	1948–2351	340
Skelly	1	NWc SE 3-2-3	1960–1986	135
Skelly	2	NEc NW NE 3-2-3 W	1721–2127	348
Magnolia	10	SWc NE SE 23-2-3 W	1326–1328	22M
Magnolia	1	SEc NE 16-2-2 W	1082–1115	43
Amarada	25	SWc SE SW SE 20-5-1 E	1614–1624	25
Schermerhorn et al.	1	NEc NW NW 24-5-1 E	T. D. 4228	Dry

Creek County

Barnsdall	3	NWc SW SW 26-17-8 E	3194–3205	140
Margay	4	SEc NE 9-16-8	2911–2920	60
Regal	29	NWc NE NE SW 6-18-12 E	1989–2020	125
Jackson-Wise	1	NWc SW SW 20-17-10	2090–2142	15
Wright	9	CNL SE NW 24-17-10	2415–2433	15
Wright	10	SEc NE NW 24-17-10	2473–2481	10
Shaffer	6	NEc 17-17-11	2655–2663	220
Turner	4	NWc SW SW 9-16-12	2362–2375	30
Johnson et al.	1	SEc SW 9-14-10	3224–3231	40
Atlantic	1	NEc SE NW 16-14-10	3225–3243	320
Atlantic	1	SWc NW NE 16-14-10 E	3247–3256	40
Atlantic	2	NWc SW NE 16-14-10	3246–3250	25
Mid-Cont. Pet.	6	SEc NW 32-14-10	3418–3429	115
Slick	1	NWc NE SW 32-14-10	3403–3411	125
Grieves	6	CNL NW NE 13-19-8	T. D. 2515	Dry
Slick et al.	2	SWc NW 10-16-8	T. D. 3020	Dry
Chief et al.	1	SEc SW SE 16-17-10	T. D. 2975	Dry
Steinberger et al.	2	NWc NE SW 20-19-8	T. D. 2677	Dry

Garfield County—Garber

Sinclair	36	NWc NE NE 13-22-4 W	3609–3693	280 OWPB
Sinclair	60	SEc NW NE 13-22-4	3619–3660	903
Sinclair	35	NE NW NW 19-22-3	3570–3616	55
Sinclair	21	SWc NW NE 30-22-3	2024–2037	10
Weir-Wood	1	SEc NW 6-23-6 W	T. D. 500	Dry
Roxana	8	NW NE NW SW 18-22-3	T. D. 3873	Dry
Champlin	2	NWc NE 21-22-3 W	T. D. 2010	Dry

Grady County

Carter	1	NEc SE SW 27-3-5 W	1481–1509	30
Carter	2	SEc SW 27-3-5	1467–1485	50

Hughes County

Tidal Osage	9	NE SW SW 3-9-11 E	2904–2921	125
Amarada	2	NEc NW 5-7-8 E	4160–4179	1560
Humble	1	NWc SE NE 5–7–8 E	4060–4066	15
Magnolia	1	NW NE SW 5-7-8	4184–4198	500
Magnolia	1	SWc NW 18-9-9	T. D. 3502	Dry
Magnolia	2	SEc NE 5-7-8	T. D. 4279	Dry

Jefferson County

Penders	1	NW NEc SW 25-7-4 W	T. D. 2504	Dry

Kay County

Carter	1	NWc NE 20-29-1 E	2318–2333	258
Comar	1	SEc SW 5-28-1 W	2766–2805	256
Blackwell	9	SW NW NE 9-27-1 W	3421–3424	320
Junction	2	C SE NE 30-29-1 E	T. D. 2685	Dry
Moore	1	SEc 4-28-2 W	T. D. 4110	Dry

Lincoln County

Phillips	1	NWc SE 8-15-6 E	4032–4046	231
Johndahl	1	SEc SW 15-15-6	T. D. 3270	Dry

Muskogee County

Link	1	NEc SW NE 28-15-15 E	T. D. 2149	Dry

Noble County

Wilkins-Kors		SEc NE 22-24-2 W	T. D. 450	Dry

Okfuskee County

Evans-Starr	1	NWc NE 15-10-12 E	T. D. 3538	Dry

Okmulgee County

Barnsdall	1	SWc NW SW 33-16-11 E	2003–2070	10
Devonian	2	CEL NE SE 23-15-12	2586–2606	12M
Campbell	2	SWc NW SW 24-15-12	2637–2651	40
Marsey	8	CEL SW NW 8-13-12	2240–2273	15
Buckles	17	NWc 5-11-12	1505–1592	7
McCulloch	2	CWL SW SW 15-15-14	2315–2323	100
Texas	6	SEc SW SE 16-15-14	2304–2312	300
Texas	8	SWc SE SE 16-15-14	2289–2299	300
McCulloch	6	CNL NE NE 21-15-14	2254–2265	240
Future	5	SWc NE SE 9-14-14	1855–1878	8M
Simms	18	NEc 15-13-14	1615–1662	25
Lambert	1	NWc SE NW 21-13-14	1751–1760	10
Iron Mtn	12	CEL SW NW 24-13-14	1962–1987	50
Tiger Mtn	1	SEc NE NE 4-11-13	2049–2052	8.5M

Okmulgee County

Company	Well No.	Location	Depth	Initial Prod.
Johnson	1	SWc SE NW 10-15-12 E	T. D. 2690	Dry
Michelson	2	NWc 29-15-12	T. D. 2747	Dry
P & R	8	SEc SW NE 32-13-11	T. D. 3291	Dry
Kirkland	3	C NE 17-15-13	T. D. 2586	Dry
Drew-Beams	4	SEc 15-14-14	T. D. 1518	Dry
Beard	14	NWc SW SE NW 23-14-14	1107	Dry
Gardner et al.	2	SEc 32-14-14	T. D. 1317	Dry

Osage County—Burbank

Phillips	7	NW SE NE 12-27-5 E	2995–3032	250
Phillips	3	SW SE SW 21-26-6	2912–2958	636

Osage County

Keener	20	NEc SW NE NE 15-29-10	1066–1093	20
Jennings	4	CNL SE 31-29-12	918– 940	25
Osage Gas	368	SWc 8-27-11 E	774– 779	1.25M
Osage Gas	370	SE SW SW SW 9-27-11	755– 765	1.25M
Knupp	10	CSL N½ SE 35-27-11	996–1049	40
Winona	3	SW SE SW 27-24-10	1345–1361	15
Peters	10	NE SE SE 12-23-8	2070–2137	120
Mid-Co.	16	C SE 18-22-10	1808–1870	40
Tidal	3	SW SE NW 22-21-12	1250–1280	5
Ross et al.	2	SEc SW 10-27-11	T. D. 1083	Dry
Mid-Contl.	1	NW NE NE 28-23-10	T. D. 2430	Dry
Mid-Kans	2	SE SW SW 36-22-8	T. D. 1875	Dry
Atlantic	1	SWc NE 8-22-9	T. D. 2760	Dry
Devonian	1	SEc SW SE SE 24-21-9	T. D. 2673	Dry
Commercial	9	SW SE SE 16-21-12	T. D. 1980	Dry

Pawnee County

Independent	1	SWc 1-21-6	T. D. 3465	Dry

Payne County

Deep Rock	1	NWc SW NE 26-18-3	4293–4317	54

Rogers County

Hadley et al.	1	SWc NE 3–20–17 E	T. D. 644	Dry

Seminole County

Magnolia	9	CEL W½ NW NW 5-7-8 E	4153–4159	13
Homaokla	3	NWc SE NE 6-7-8 E	4127–4136	963
P & R	3	NEc SW SE 32-8-8 E	4165–4170	20
Magnolia	1	NEc SW NW 14-8-7 E	T. D. 3211	Dry
Amarada	1	SEc 32-8-8	T. D. 4171	Dry
Homaokla	6	SEc NE 6-7-8	T. D. 4143	Dry

Stephens County

Carter	1	SWc SE 28-1-8 W	2761–2765	200
Magnolia	18	SWc SE SW 34-1-5 W	2642–2665	8
Malernee	1	SWc SE SE 36-2-9 W	T. D. 2530	Dry

Wagoner County

Wilson et al.	1	NWc SW SE 11-16-16	1360–1564	60 & 1¼M
Perry et al.	2	CEL NE NE 3-20-17	T. D. 1375	Dry
Sevreda	3	NEc SW SW 21-17-16	T. D. 1327	Dry

KANSAS

Chase County

Preston et al.	1	SWc SE 25-18-6 E	1248–1263	4½M
Smith et al.	1	C SW NW SE 36-22-9	T. D. 2675	Dry

Elk County

Pure	10	NWc SW NW 13-31-10	1615–1627	200
Union Gas	14	SWc SE SE NE 14-31-10	1627–1645	300
Union Gas	15	NEc SE NE 14-31-10	1613–1627	600

Greenwood County

Prairie	1	SEc 7-24-11 E	1866–1885	147
Manhattan	1	C SE SW SE 2-22-10	2062–2140	350
Davis et al.	22	C NE SW SE 12-22-10	2238–2256	10

Greenwood County

Rhodes et al.	6	C NW SE SE 18-22-10	2349–2405	115
York State	3	C [illegible] SW NW 32-22-11	1967–2029	100
York State	6	C NE SW NW 32-22-11	1987–2027	75
Theta	23	NWc SW NW NW 10-23-13	1570–1628	20
Parrish et al.	1	C SW SW NW 16-23-13	1780–1823	5
Mid-Cont. Pet.	7	SWc NW SE NE 28-23-13	1721–1738	20
Christy et al.	1	C SE SE SW 31-24-13	1550–1608	30
Davis et al.	21	C NW SW SE 12-22-10	T. D. 2692	Dry
Texas	1	C NW NW NW 36-23-8	T. D. 2566	Dry
Swartz et al.	1	C NE NE SW 17-23-11	T. D. 2024	Dry
Miss. Valley	1	C NE NE NW 5-26-10	T. D. 2130	Dry

Lyon County

Transcontinental	7	C SW SW SW 30-21-10	2178–2240	225

Marion County

Sheedy et al.	2	C SE NE NW 24-21-4	T. D. 2354	Dry

Phillips County

Curtis-Frost	1	NWc SE 15-5-16 W	T. D. 3663	Dry
Phillips-Prairie	1	C S½ SE 13-5-18 W	T. D. 3985	Dry

Rice County

Streeter et al.	1	C SE SE SE 17-21-6 W	T. D. 3804	Dry

Russell County

Mid-West	34	C SW SE NW 32-11-15 W	2870–2902	100

Woodson County

Pure	11	SEc NE SE NW 6-24-14 E	1715–1732	30
Stover	1	C SE NE NE 33-25-14	T. D. 1702	Dry
Cortez	1	SEc 1-26-14	T. D. 1425	Dry

Hartley 573,906 barrels and the discovery well of the field No. 25 Bellveal approximately a half million barrels.

Magnolia Petroleum Co. added another to the list of famous wells when it drilled in its No. 1 Skinner in the Wewoka field on December 18, 1925. In the four months up to April 17, this well produced 439,175 barrels of oil. Since then it has been pumping intermittently but total production to date is not available. Total production of the lease to Sept. 1, was 1,189,176 barrels.

The Thomas field near Tonkawa failed to become a major field but it contributed at least one well to the roll of honor among Wilcox producers. Marland's No. 4 Thomas has produced around 700,000 barrels to date.

Gypsy Well Making B. S.

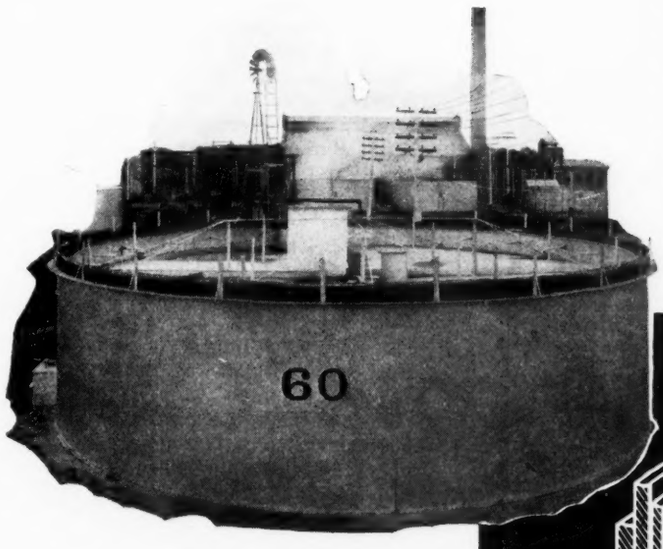
ALTHOUGH Gypsy's No. 1 Carter in the SEc NE NW of 24-9-6, Seminole, is still a good well it will not stack up beside the Independent-Garland discovery. During the past week the oil

Wiggins Roofs are Double-Sealed

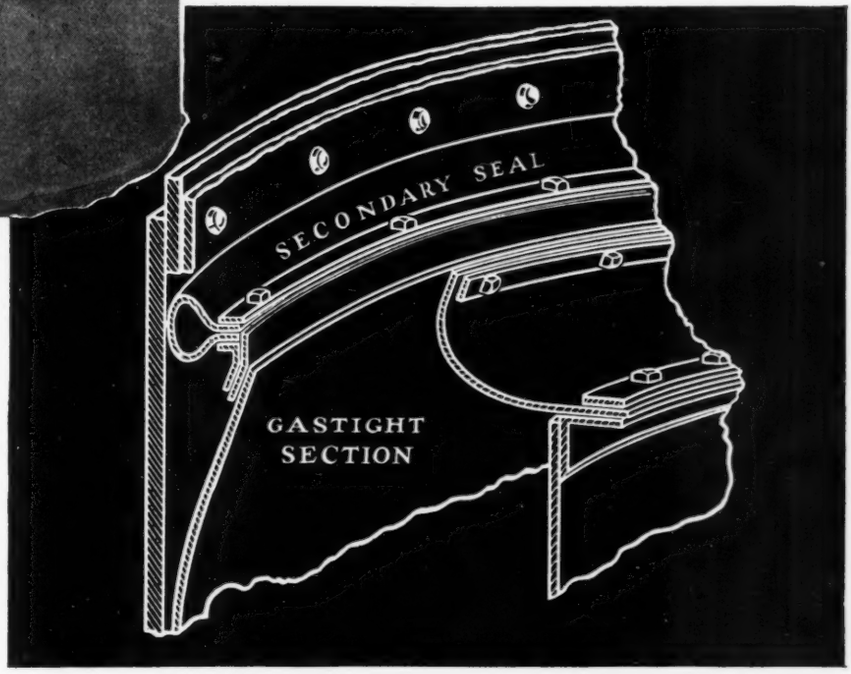
EXAGGERATED evaporative conditions exist at the edge of a floating roof pan unless the space between it and the tank shell is sealed properly. The Wiggins Roof seal, with its gastight section and tall, narrow slot, seals this space effectively.

To make doubly sure that the Wiggins Principle stops evaporation over the tall, narrow slot, standard installations on light oils are equipped with the secondary seal, illustrated below. It is a wire-woven asbestos loop which extends from the top of the shoe to the tank shell. It bends up or down when striking a horizontal seam or rivet, always closing all the space between the top of the shoe and the shell.

At the bottom of the tall, narrow slot, a heavy vapor blanket is held by gravity over the small oil surface. The secondary seal keeps wind currents from entering to disturb this protective vapor blanket.



A Wiggins Roof on a run-down tank at a refinery.



A perspective view showing the double seal between the roof deck and the tank shell.

CHICAGO BRIDGE & IRON WORKS

Chicago	2125 Old Colony Bldg.	Dallas	1639 Praetorian Bldg.
New York	3145 Hudson Terminal Bldg.	Atlanta	1050 Healey Bldg.
Cleveland	2206 Union Trust Bldg.	San Francisco	1060 Rialto Bldg.
	Havana, Cuba	Apartado 2507	

WIGGINS ROOF

Drilling Operations in Oklahoma, Kansas and North Texas

	Sept. 11—Week Ending					Sept. 4				
	Loc.	Rigs.	Drg.	S.D.	Total	Loc.	Rigs	Drg.	S.D.	Total
OKLAHOMA										
Burbank	6	7	22	1	36	5	11	16	..	32
Other Osage	17	10	57	4	88	14	14	51	9	88
Bristow-Cushing	20	19	154	12	205	15	31	144	11	201
North Oklahoma	11	25	184	88	258	13	23	138	88	262
South Oklahoma	21	26	170	40	257	22	30	161	44	257
Muskogee	..	8	62	18	88	..	14	65	16	95
Okmulgee-Bristow	12	55	127	24	218	10	57	126	28	221
Tonkawa	2	..	24	1	27	2	..	24	1	27
Wewoka-Cromwell	13	19	217	27	276	15	20	204	34	273
Total Oklahoma	102	169	967	215	1453	96	200	929	231	1456
KANSAS	58	74	241	88	461	65	71	243	92	471
NORTH TEXAS										
Eastland County	..	5	66	14	85	..	5	73	13	91
Stephens County	..	9	20	16	45	..	6	21	15	42
Texas Panhandle	..	193	384	71	648	..	176	381	72	629
Mexia District	..	23	30	5	58	..	16	35	6	57
E. Tex. Wildcats	..	6	11	8	25	..	127	133	38	298
W. Tex. Wildcats	..	177	391	106	674	..	5	6	11	22
Wichita Falls	..	92	152	41	285	..	148	389	108	645
Total N. Texas	..	505	1054	261	1820	..	483	1038	263	1784
GRAND TOTAL	160	748	2262	564	3734	161	754	2210	586	3711

has begun cutting and is now producing about 1 per cent b.s. Present production is 2537 barrels. The temperature of the oil rose from its initial of about 71 to around 90 and has since dropped back to 86 degrees. F.

Amerada Petroleum Corp. has set casing at 4062 feet on top of the lime and is now drilling ahead on its No. 1 Killingsworth in the SEc SW NE of 23-9-6. This well should reach the Wilcox within another week or so and will throw much light on future possibilities of the field. It is reported running about 13 feet higher than the Gypsy well which found the Wilcox 74 feet lower than in the Independent well.

I. T. I. O. has helped define the eastern edge of the Wilcox apparently in its No. 2, James in the NEc NW SE of 24-9-6 which was a hole full of water in the Wilcox at 4231 feet. This is the second dry hole in that immediate vicinity.

The big play is now in section 26 where there are now 10 wells between 2000 and 3000 feet. In the six sections surrounding the Independent-Garland well there are 23 wells below 2000 feet which should all be in within 30 to 40 days. If the field covers only a relatively small area its peak may be reached when these wells are in. An estimate of the production of the field from these 23 wells has been placed by some at around 50,000 barrels. This apparently is very conservative in view of the fact that the present two Wilcox sand wells are producing 10,000 barrels per day.

In the process of deepening its No. 3 Carter in the SWc SE NW of 24-9-6 Barnsdall has increased the production of that well from 258 barrels at 3895 to 3927 to a production of 1720 barrels per day at a present total depth of 3934 feet.

Roxana's Wildcat

ROXANA'S No. 1 Reed in the SWc NE of 34-24-3W mentioned in these columns last week as an interesting wildcat appears less promising than it did a week ago when the Wilcox sand was first scratched at 4855 feet. After the hole was swabbed out it began making water, making 22 barrels of oil and 16 barrels of water one day. Roxana production men believe the water is coming from the lime above the sand and are now drilling ahead at 4858 feet, three feet in the sand.

Seven miles west of Muskogee W. R. Sommerville has an interesting well in its No. 1 Warrior in the NEc of 17-15-17 which found sand at 1439 to 1440 feet and produced 70 barrels of 38 gravity oil in the first 12 hours. Finding 3 feet of cavings in the hole it was agitated and the well began to flow at the rate of 25 barrels per hour.

In Kansas Cassoday's No. 1 Yoeman wildcat in the C SE of 35-28-7W, Kingman county, found 3,000,000 feet of gas at 4032 feet. When the well was deepened two feet it increased its flow to 5,000,000 cubic feet.

In Lincoln county Shaffer's No. 1 Cook in the SEc SW of 31-17-5 is just in the top of the Misener sand at 4022 feet, the well producing 270 barrels of fluid of which 23 per cent is water. Roxana's No. 1 Scott in the SWc NE NW of 31-17-4 has 2000 feet of oil in the hole at a total depth of 3373 feet. The well will be carried deeper.

In the Braman townsite field Comar's No. 4 Lawrence in the NWcNE SE NW of 5-28-1W produced 77½ barrels in the first four hours at a total depth of 2383. Sand was topped at 2348 feet.

State Production Down

DURING the past week there were 64 oil wells completed in Oklahoma with a combined initial production of 11,753 barrels as compared with 53 during the week ended Sept. 4 with a combined production of 12,890 barrels. The average flush production thus dropped 60 barrels per well to 183.6 barrels. There were 6 gas wells completed and 39 wells abandoned as dry.

In Kansas 16 wells were completed with a combined initial production of 2327 barrels and average of 145.4 barrels per well as compared with 13 oil wells the previous week with a total flush of 2045 barrels. In Kansas one gas well was completed and 11 wells were dry and abandoned.

Daily average production of Oklahoma is estimated by National Petroleum News as being 465,140 barrels during the week, a reduction of 1710 barrels from the previous week. Kansas production decreased 240 barrels to an average per day of 112,550 barrels.

North Texas drilling operations continue well in advance of those in Oklahoma and nearly equal the total of both Oklahoma and Kansas. At present there are 1453 operations in progress in Oklahoma, 1820 in north Texas and 461 in Kansas, a total of 3734. This is an increase of 23 over the previous week.

Carbon Industry Pioneer Dies

MONROE, LA., Sept. 11.—J. D. Pribble, general superintendent and large stockholder of the Columbian Carbon Co., and its subsidiaries, died of paralysis at the age of 52 at Charleston, W. Va., on Sept. 1.

Mr. Pribble had been active in the development of the carbon industry in Louisiana, and was often termed the "father" of the industry in this section. He became general manager of the above company seven years ago. He had taken over the Southern Carbon Co., of Monroe, which is now the most important of the 12 subsidiary companies of the Columbian group, when it was a small and struggling organization and developed it to its present status of importance.

Mr. Pribble was also a director and stockholder of the Natural Gas Co. of Monroe. He took a large interest in civic development and affairs and donated sums of money to betterment of the city. He was a member of the Riverside Country Club and the Lotus club here. His business and social connections brought him to Monroe about once each month as most of his time was spent at Charleston.

Jobber Sells Business To Officers

ROCKY FORD, COLO.—Early in August the controlling interest in The Otero Petroleum Sales Co., which was organized here in 1919 by Homer T. Seale, was purchased from Mr. Seale by O. G. Dukate and Perry E. Williams. Mr. Seale is leaving this territory as he is manager of the Gulf Motors Co., Inc., of Mobile, Ala., to which he will now devote his time.

Both Mr. Dukate and Perry E. Williams have been with the Otero company in an executive capacity since its organization. Mr. Dukate had been secretary-treasurer and Mr. Williams, who is an attorney, had been vice president and legal adviser. The active management of the company had been in the hands of Mr. Dukate.

The company is wholesale distributor of Veedol oils and greases and Champlin gasoline.

WORCESTER, MASS.—F. C. Bellis Co. has added three new tank trucks to its delivery equipment.

Mr. Walter C. Teagle, President of the Standard Oil Co., N. J., is quoted from a recent interview as published in The Oil and Gas Journal, issue of June 24th, 1926:

"More and more fuel oil should be, and will be, cracked and less sold."

Universal Oil Products Company
Owners of the Dubbs Process
310 South Michigan Ave
Chicago, Illinois

Natural Gas Industry Leader Stricken At Desk in Company Office

CLEVELAND, O., Sept. 11

MAY 11, 1860, there was born on a farm near Mayville, New York, a boy whose body was today escorted to Calvary cemetery here by industrial leaders from many cities.

Into that 66 years of life had been crowded the most virile activity. The name of Martin Benson Daly, president of the East Ohio Gas Co., stood for the highest type of industrial leadership. The end of his life was typical of its course. He died at his desk shortly after noon Sept. 8, while talking with one of the company's customers.

It was often remarked that the East Ohio Gas Co. was known not so much as a subsidiary of the Standard Oil Co. of New Jersey as "Mr. Daly's company." An incident which Mr. Daly told this writer illustrates the infinite pains he took to promote public good will for his company and overcome misunderstandings.

On his way to his office one morning Mr. Daly found a blind man waiting for someone to lead him across the street. Mr. Daly assisted him and it developed that the man was on his way to pay the monthly gas bill, the street car company had changed the location of the car stop and the blind man was no longer able to find his way. Recital of his grievance led to another, the gas bill was too high and the gas company must be growing enormously rich charging such prices for something that really belonged to the public.

Whereupon, without revealing his identity, Mr. Daly led the blind man to a comfortable seat in the company's building and discussed the matter with him in all detail—as though the man were an important customer instead of one who paid only two or three dollars a month. He spent a half hour out of a busy morning in drawing a picture of all that the company had to do to supply that two or three dollars' worth of gas.

He was ever willing to interrupt his work to further better feeling between his company and a customer. The nature of his training, enabled him always to see customers as individuals, entertaining sometimes amazing prejudice against any public utility, rather than as a mass. He spent the first 18 years of his life on the farm, then began work at Dallas City, near Bradford, Pa., where he started as a pipe fitter. He engaged in many phases of the actual drilling and operating of wells and the transportation of oil and gas, and in all spent three years as tool dresser, pipe line worker, driller, and builder of pumping stations.

90 Mile Pipe Line A Record

IN 1881, Mr. Daly was made assistant superintendent of the Warren County Gas, Fuel and Heating Co., which company piped gas to North Clarendon, Pa. Then came a period of construction of natural gas distributing facilities at Oil City, Titusville and Meadville. The Buffalo Natural Gas Fuel Co., which undertook to install the then world's record length pipe line—90 miles long—from the Bradford district to Buffalo, sought Mr. Daly to be superintendent. This was in 1886. It was pioneering work, for the practicability of transporting gas this distance was doubted by many of the early day gas men. The same company also pioneered in selling gas by meter measurement.

—Underwood & Underwood

MARTIN B. DALY

Four years later the help of Mr. Daly was needed by the Northwestern Ohio Natural Gas Co., which faced stiff competition from the city of Toledo, which had issued bonds and thus itself financed a natural gas distributing company. Mr. Daly was placed in charge of the work of expanding facilities to meet the competition, later being made general superintendent of the company. In this same year, 1890, he married Miss Kathleen McMahon, of Elicottville, N. Y.

Cleveland offered a larger field for his talents in 1902, when the East Ohio Gas Co., then six years old, sought a long-term franchise to distribute natural gas. Mr. Daly obtained the support of Mayor Tom L. Johnson and was instrumental in getting the company firmly established. Immediately thereafter he was made general manager and in 1906 was elected president also. Three years later he effected a merger with the Cleveland Gas, Light and Coke Co., which operated an artificial gas plant.

Largest Distributor of Natural Gas

UNDER his guidance, the East Ohio became the largest distributor of natural gas of any company in the industry, which position it still maintains. It supplies Cleveland and suburbs and some 50 other cities and towns of northern and central Ohio with gas and in addition is a large producer of gas in northern and central Ohio.

His application to the affairs of the company was close. Four years ago Ralph W. Gallagher was made vice-president and general manager of the company to share the always heavy burden of corporate direction, but each day usually found the president at his

desk. Of recreation he knew little. He did not play golf, he traveled only on business, generally. Now and then he went on a fishing trip, but usually returned before the date he had set.

Mrs. Daly survives him, and five children. Walter is president of the Andover, (O.). Gas Co. and is an independent oil producer. Kathleen (Mrs. J. F. McMahon) lives in Los Angeles. Martin B. Daly, Jr., Daniel and Margaret live in Cleveland.

Mr. Daly had numerous business interests. He was one of the principal organizers and president of the Wade Park Manor Co., operating one of Cleveland's largest apartment hotels; was a large stockholder in the Formax Oil Co., California, director of the Union Trust Co., Cleveland and of the Ohio Savings Bank and Trust Co., Toledo. He was past exalted ruler of the Toledo Elks, a member and former president of the Cleveland Athletic Club, member of the Union Club, Shaker Heights Club, Knights of Columbus, director of the American Gas Association and a former president of the Natural Gas Association of America.

Funeral services were held this morning at 10:30 o'clock. Requiem mass was celebrated at St. Philomena's church, East Cleveland. Active pallbearers were Ralph W. Gallagher, vice president and general manager of the East Ohio Gas Co.; John J. Stanley, president of the Cleveland Railway Co.; M. P. Mooney, attorney; H. V. Shulters, president of the National City bank; D. J. Champion, president of the Champion Rivet Co.; Frank H. Randel, vice president and district manager of the Autocar Sales & Service Co.; Michael F. Barrett, president-treasurer of the Cleveland Brass Manufacturing Co., and John J. Bernet, president of the Nickel Plate railroad.

Honorary pallbearers were Dr. T. J. Schmoldt, George A. Coulton; Christy Payne, executive of the Standard Oil Co. of New Jersey in general charge of natural gas companies; C. T. White; John B. Corrin, general manager of the Hope Natural Gas Co.; Frank H. Ginn; Herman Trenkamp; Malcolm G. Vilas, of the Standard Oil Co. of Ohio; Henry A. Taylor, Fred A. Miller, of the Dresser Manufacturing Co., Bradford; Appellate Judge John J. Sullivan; Gordon Mather; George W. Crawford, of the Columbia Gas & Electric Co.; Edward Butler; Walter C. Teagle, president of the Standard Oil Co. of New Jersey; J. C. Donnell, president of the Ohio Oil Co.; Supreme Court Judge Reynolds R. Kinkade, of Toledo and Judge Brian O'Donnell.

CLEVELAND, O.—Ohio Oil Co.'s deep test in Sec. 32, Bridgeport township, Lawrence county, Ill., is drilling in the Trenton formation, top of which was found at 2970 feet. A showing of oil was found at that level.

FORT WORTH, TEX.—The Moody Corp. of this city is building a standard rig on section 4, block 1, Reagan county.

Electric Display to Make Your Location Pay—*More!*

Tell the motoring public repeatedly where you are and what you sell with a permanent, low cost Flexlume electric day-and-night sign—and you will sell more.

A dominating Flexlume draws customers from far up and down the street as well as from the passersby.

Flexlume's modest first cost is no greater than that of many inferior signs, and its low upkeep and unusual wearability make it by far the least expensive over a period of years.

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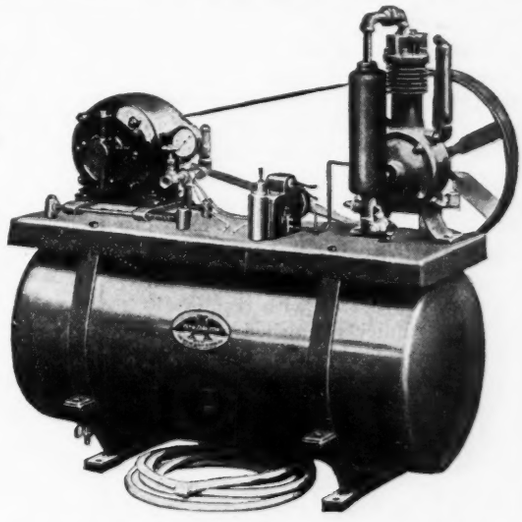

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Electricity Drills 3,000-Foot Spindletop Wells in Sixteen Days

By Paul Wagner
N. P. N. Staff Writer

AFTER almost 25 years of routine performance producing oil the Spindletop Gulf Coast field is again making history through a drilling boom on the flank of the original salt dome. This field, famous for bringing Texas its first "gusher" oil and giving a start to many oil operators who are now high up in big companies, is again alive to the rumbling of rotaries and snorting of trucks hauling equipment.

What better basis could offer for comparison of present drilling practice with that in vogue when Spindletop came in in 1901? Mr. Wagner, staff writer for National Petroleum News, has been studying well records of the old days, talking to operators who drilled in Spindletop then and observing the present methods.

The accompanying is the first of two articles he has written. The second, to appear in Sept. 22nd issue of National Petroleum News, will tell something of the men whose names first began to appear in oil news when Spindletop came in 25 years ago, and what has happened to them since.

BEAUMONT, TEXAS, Sept. 10. THEY'RE drilling wells at Spindletop now to 2850 to 3225 feet deep as quickly as caprock wells were finished at 1100 feet twenty-five years ago when Spindletop gave Texas its first "gusher" oil.

They do it by building up 175 to 200 pounds of steam in the boilers, as compared with 100 to 125 pounds in drilling practice when this Gulf Coast field enjoyed its first boom starting in 1901.

By using twin drilling engines 11x11 size, which accumulate to 200 horsepower, in contrast with the one-cylinder 10½x12 engines, which had a maximum of 75 horsepower.

By using heavy duty mud pumps, 12x6¾x14, comparing with the 10x5¾x12 pumps formerly used.

By modern drawworks installations, with two and three speeds, as against the old-style single speed "coffee mills."

By surfacing the cutting edge of fishtail bits with Stellite, a hard face, which lengthens the time the tools can be used without being sharpened.

One company, the Gulf Production Co., is using electric drilling equipment, which speeds up its drilling operations until the methods that were in vogue in Spindletop 25 years ago seem almost child's play. This is the only company, however, using this type of power for making hole.

DRILLING speeds attained in the present flank development in the field compare favorably with results obtained in the quickly finished wells of the Mexia-Powell region, notably Wortham. Wells are put on production more quickly at Spindletop than the average in the Mexia-Powell fault zone, but actual drilling time probably is no faster.

Finished Without Cementing

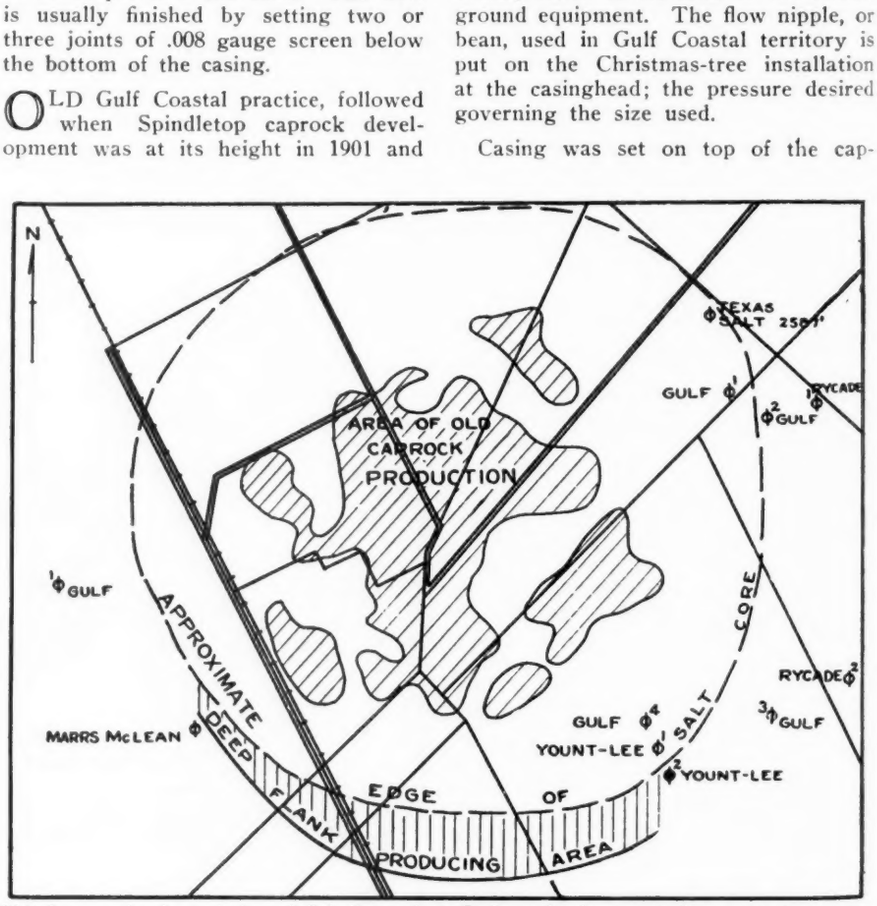
IT is standard Gulf Coastal practice, in fields where a thick gumbo is found above the pay sand, to finish wells with formation shut-offs instead of setting casing. In most all wells drilled offside the Spindletop salt dome it has been possible to do this. In a relatively small number of wells where the drill penetrated shale instead of gumbo above the pay it has been necessary to set and cement casing.

In making formation shut-offs at Spindletop, the hole is reduced from 9⅞-inch to 6¼-inch on top of the gumbo, generally found about 40 feet above the pay sand. A 6¼-inch hole is then drilled down to the top of the sand and the 6⅝-inch casing forced through the gumbo, usually coming to rest about 18 to 20 feet in the pay. After casing the hole in this manner, drilling proceeds deeper into the sand. The hole is usually finished by setting two or three joints of .008 gauge screen below the bottom of the casing.

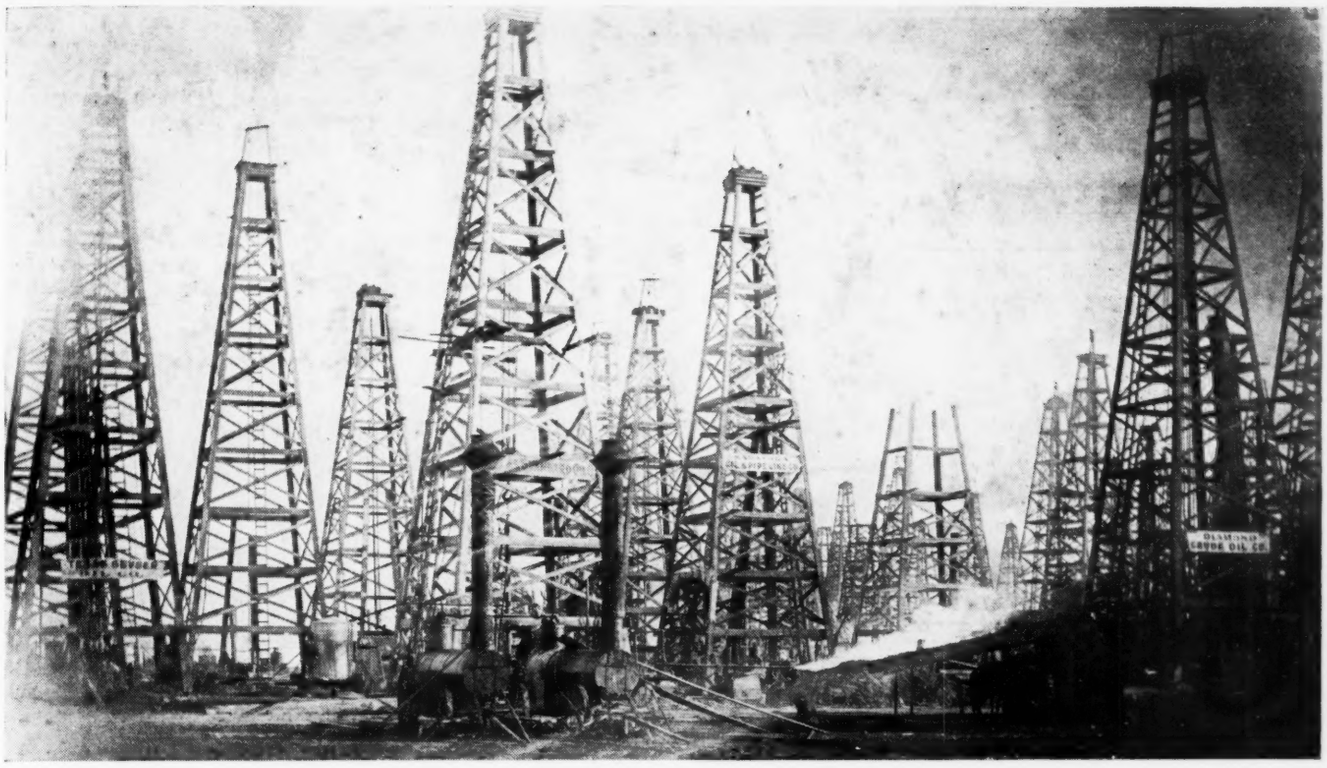
OLD Gulf Coastal practice, followed when Spindletop caprock development was at its height in 1901 and 1902, was to let a well flow wide open, until it cleaned itself. Such a practice was responsible for "choking-up" many of the Spindletop caprock "gushers"; and later, when screen had been invented, the practice of flowing wells wide open often resulted in sand cutting out the screen and choking-off the oil production.

Now, when a well shows any evidence of flowing, the practice is to allow it to clean itself through a 1-inch flow nipple, or bean, which puts back pressure on the bottom of the hole and checks action of the sand on the underground equipment. The flow nipple, or bean, used in Gulf Coastal territory is put on the Christmas-tree installation at the casinghead; the pressure desired governing the size used.

Casing was set on top of the cap-



Sketch map showing relation of Spindletop deep flank production to shallow caprock area on top of this famous salt dome.



View in the heart of the old Spindletop field, in 1902. Modern town-lot development cannot show any closer spacing than this. Photo Courtesy H. A. Melat, Gulf Production Co., Fort Worth.

rock in the original Spindletop development, after which the drilling-in operation was completed with open hole to bottom. Perforated pipe and screen were not then known, having been developed afterward as means of dealing with loose sand conditions at Sour Lake and Batson.

Bits Faced With Stellite

STELLITE, a patented compound consisting of an alloy of chromium nickel and tungsten, is being used by all contractors at Spindletop to "hard-face" the cutting edge of fishtail bits. This compound, which sells for about $7 a pound, is applied to the cutting edge of the bits with the aid of an oxy-acetylene blow torch after the bit has been dressed by a field blacksmith.

The use of Stellite has cut down the number of bits used in drilling the 9⅞-inch hole from 15 to six. Allowing three hours time for the round trip of pulling out and going back into the hole, when changing a bit, this means that Stellite alone has saved 27 hours drilling time on the individual well.

Speed Records Set

WITH present type heavy duty equipment, including vari-speed drawworks installations, large mud pumps, high pressure boilers and twin drilling engines all developing their respective efficiencies, it is not surprising that speed records are being set without the sacrifice of completed well values at Spindletop.

The fastest time made in the field when this was written was in one of the Rio Bravo Oil Co.'s wells on the T&NO railroad right-of-way, completed in 12 days. The Rio Bravo, which had been producing oil at Spindletop 42 days, had recovered 430,000 barrels of crude, August 25, without a barrel of sand.

The Rio Bravo uses back pressure on all its wells, to which its management attributes the fact that only one of its five wells had made any water up to this writing. The No. 3 well was showing 2 per cent salt water; all others of the Rio Bravo were free from contamination. Combined production of the five wells was 17,200 barrels.

Combating Poison Gas

H. A. MELAT of Fort Worth, now manager of production in north and west Texas for the Gulf Production Co., who was one of the early arrivals at Spindletop in 1901, harks back to the "horse and buggy" days of the oil business when he tells of methods used in combating poison gas in the field.

Melat was looking after development for W. E. Brice on the old Keith-Ward property at Spindletop when he went out to the field about 9 o'clock one morning. Jack Mason was the only field man on the job looking after the eight or 10 wells on the property.

Mason said, so Melat relates, that the rest of the men had been "taken in; for God's sake get me out." It was no uncommon occurrence for one field man to ask another: "Got any dope in your pocket; put some in my eyes." Everybody carried Dobell's solution for protection.

Besides this remedy, "First Aid" kits in the old Spindletop consisted, according to Melat, of plentiful supplies of cold tea leaves and grated Irish potatoes. There's another contrast between the old days and the new; present day field operations calling for company installed Safety measures and "First Aid" training of men to provide against almost any emergency.

Tanks Now Gas Tight

GAS produced with the oil in present deep wells never reaches the air. It goes into gas-tight lease tanks of modern construction. In wells producing water with the oil the fluid is separated in electrical dehydrating units of the type manufactured by the Petroleum Rectifying Co. of California, many of which are in use in Gulf Coastal fields.

One has but to look back "on the hill," to the old Spindletop, however, to see clustered here and there many of the old wooden lease tanks of the type used in former days. Perhaps they are actually relics of caprock development at the height of its boom in 1901 and 1902.

Pumping Methods Compared

STEAMHEADS operating with an up and down motion, having a stroke comparable with the cylinder of an engine, were used to pump most of the early Spindletop wells after they had ceased to flow. It was necessary to install these 12x36 inch steamheads because there was not room in the producing area to build standard rigs for pumping.

It was an actual fact, many operators say, that rigs were so close together in

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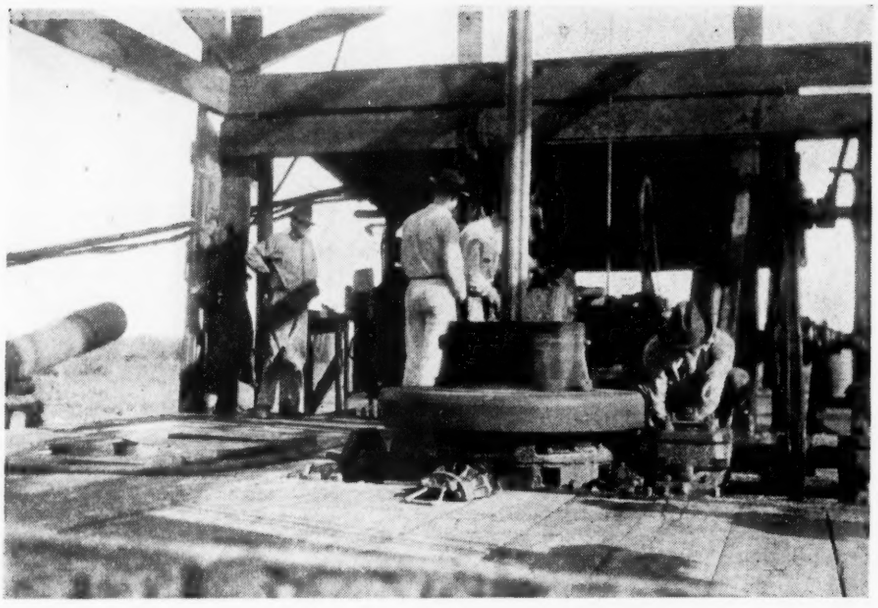

—*N. P. N. Staff Photo*

Floor of Gulf Production Co.'s electrically operated rig at Spindletop.

parts of the caprock development area in 1901 and 1902, that the legs of derricks overlapped each other.

As time proceeded and many of the early Spindletop wells were lost from the producing column, pumping jacks were installed and connected with central powers by pull rod hook-ups. Then came the first use of electricity in pumping Gulf Coastal wells at Spindletop, in 1910.

Electricity Replaces Steamheads

ELECTRIC power has grown in usage throughout the oil fields of the Gulf Coastal territory and provides a modern substitute for the old steamheads in pumping such deep flank wells at Spindletop as have reached the stage where they must be operated on the beam. Besides it saves field space. With derricks as close as 15 to 25 feet from each other in parts of the present deep development the question of room in the field is again paramount.

Steam boilers used in drilling are arranged in batteries of half a dozen to save field space, connecting lines running off in either direction to the individual drilling wells served.

Standardizing On Electricity

GULF PRODUCTION CO. is using three electric drilling rigs in its present Spindletop development and, according to its producing department, will not buy any more steam rigs for use in Gulf Coastal territory when wells are being drilled in fields where electric power is available.

Parenthetically, the Gulf is using a total of 10 electric rigs in Gulf Coastal territory at the present time and has placed orders for four more. Besides the three at Spindletop, the Gulf's other electric rigs now in operation are being used in the Hull, Blue Ridge, Big Creek, Vinton and Evangeline fields. Two of the additional rigs ordered will be used in developing the Orchard salt dome, one will be sent to Orange and the other to Goose Creek.

Only about two days' time is required to move and set up an electric drilling rig, the Gulf has found in its Spindletop experience. Energy consumption has

Record of Wells Drilled by Gulf Production Co. in the Hull, Texas, Field with Hild Differential Drive

July 29, 1924—Dec. 1, 1925

	SCARBOROUGH		PHOENIX			
	No. 13	No. 15	No. 53	No. 55	No. 59	Avg.
No. days drilling	57	74	44	33	48	51.2
No. ft. drilled	3049	3943	2423	3469	3374	3451
No. KW Hrs. Consumed	36288	48096	33660	27705	30780	35305
Avg. No. ft. drilled per day	53.3	53.2	77	105	70	71.7
Avg. KWH used per ft. drilled	11.9	12.2	9.8	8.0	9.1	10
Avg. KWH used per 24 hr. day	637	650	765	840	641	7.07
Total Cost of Energy	$ 725.76	$ 961.92	$673.20	$ 554.10	$ 615.60	$ 706.11
Avg. cost energy per ft. drilled	23.8c	24.4c	19.7c	13.0c	18.3c	20.4c
Avg. cost energy per 24 hr. day	$ 12.73	$ 12.99	$ 15.30	$ 16.79	$ 12.87	$ 14.13
Estimated Fuel Cost Steam Drive						
Estimated total cost Fuel Steam Drive	$2137.50	$2775.00	$1650.00	$1237.00	$1800.00	$1919.90
Est. Avg. Cost Fuel per ft drilled steam drive	71.1c	70.4c	48.2c	35.6c	53.3c	55.5c
SUMMARY						
Energy Cost Steam Rig	$2137.50	$2775.00	$1650.00	$1237.00	$1800.00	$1919.90
Energy Cost Hild Elec. Rig	725.76	961.92	673.20	554.10	615.60	706.11
Saving Over Steam Rig	$1411.74	$1813.08	$ 976.80	$ 682.90	$1184.40	$1213.79

Electric energy cost 2c per KWH. Estimated cost of steam based on 25 bbls. of oil per day at $1.50 per bbl.

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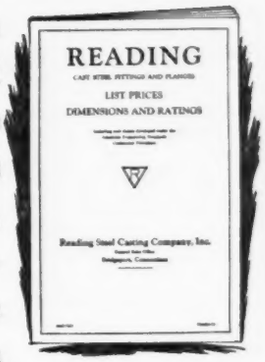

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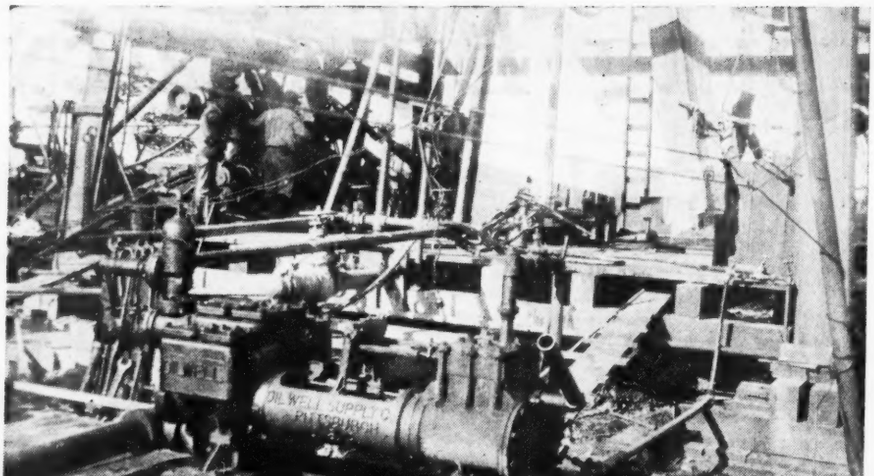

—N. P. N. Staff Photo

Modern heavy-duty equipment used by the Yount-Lee company on one of its McFaddin deep wells at Spindletop.

been found to be much cheaper than when using steam power. The Gulf's production department is authority for the statement that the flexibility of electrical operations cannot be approached by other methods as regards ease of control and general drilling efficiency.

Gulf's Electrical Record

IN drilling its first three wells at Spindletop the Gulf took only 49 days from the time of setting up at the first location till the completion of the third producer with a single electrical outfit. The average is slightly in excess of 16 days per well for the three completions.

The Gulf's use of electrical equipment for drilling at Spindletop is somewhat different from the original light rotary outfit with which Captain Anthony F. Lucas completed the caprock discovery well Jan. 10, 1901. The discovery well was drilled with a 30 h.p. boiler, Chapman 12-inch rotary rig, Smith-Vaile 5x8x10 pump, 9x12 Farrar & Trefts engine and a 2-post drawworks.

Two Types of Outfits Used

THE eight electric outfits now operated by the Gulf, including the three at Spindletop, are of the Hild differential drive type with automatic control, distributed by the Oil Well Supply Co. The four others ordered are of the Nuttall patent type manufactured by the Union Tool Co., at Torrance, Cal., these having single motor drive through single reduction gear.

All of the slush pump equipment on the Gulf's electrically operated rigs consists of two 5¾x12 pumps, directly connected with top motor mounting with 15/35 h. p. Oilwell type of motor. This, incidentally, is a type motor identical with that used by the Gulf for pumping wells, which makes for flexibility of general field operations.

The Gulf first began using electric drilling equipment at Hull, in 1924, a performance record of wells drilled on its Scarborough and Phoenix leases giving an idea of energy values as set out by the Gulf's chief engineer, J. J. Russell, of Houston.

Records of the Hull field performance were made public in a paper by Thomas Fleming, Jr., of the Oilwell Supply Co., at the Los Angeles meeting of the American Petroleum Institute, in discussing the Hild differental drive.

The records, as reproduced herewith, show the Gulf drilled five wells at an average depth of 3451 feet and an average cost of power of 20.4 cents per foot. (Power cost $0.02) Records of several of the wells drilled showed that one-third of the power consumed was used by the slush pumps. It was also noted that the Gulf's estimate of steam power cost with fuel oil at $1.50 a barrel was 55.5 cents per foot, or more than double the electric power cost.

Will Pressure Methods Prove Market Stabilizer?

IN the coming meeting of the Petroleum Division of the American Institute of Mining and Metallurgical Engineers, to be held in Tulsa in October, space has been accorded on the program for discussion of the economic effect of reviving old fields.

In the annual meeting of the division, held in New York last February, the following observation was made by F. Julius Fohs, the chairman, in his review of American production for 1925:

"If we assume that improved production methods were effective in two-thirds of the recent major pools during 1925, it is believed a conservative estimate of their effect will be had. On this basis, in excess of 106,000,000 barrels, 25 per cent of such major pool production and 14 per cent of the total production of the country for 1925, may be ascribed to such methods. To be sure, this is only a rough guess.

"Actually, however, such methods were also used in the case of new small pools as, for example, the several pools of Archer county, Texas, and new small Wilcox pools of Oklahoma, as well as in the resuscitation of wells in old pools, so that it is probably safe to say that one-fifth of the production for the year may be attributed to these methods."

Mr. Fohs was speaking of improved methods in general, which included a variety of better pumping and conservation methods besides the application of rejuvenating forces to old fields. The latter practice is now gaining sufficient headway outside its original habitat—the East—that increases in daily and ultimate yield by water and air drives are important enough to be assigned definite place in the reckoning of current supply.

An important step in the investigation of increases from old fields by pressure restoration methods is the determination of whether under pressure restoration methods a definitely determinable reserve can be built up which can be called into commerce as needed. Can old fields be re-established as important factors and drawn upon only as needed?

If it can be shown by field experiment that compressed air can be put into an oil sand until the pressure is high, and no oil need be taken out until economic conditions warrant its extraction, an important advance will have been made in adding to definite reserves as well as establishing an element of stability to the oil industry.

There are times, as every oil man knows, when several flush pools are bunched with respect to time, causing a drop in the market and affecting most the fields where the yield is small. Can such fields be restored as to pressure, shut in when it is unprofitable to produce the oil, pumped when the price permits of profit, kept off the market when they not only would lose money for their operators but would add further to instability of market?

In effect, there would be built up underground storage, available as needed. In considerations of the future, investigation of this phase of producing oil is in order now.—L. E. S.

Perpetual Inventory Safeguards Business Public Accountant Tells Jobbers

By B. E. Patton
Springfield, Ill., Accountant

That accounting systems for oil jobbing companies are not essentially different from those governing any other wholesale and retail business, was the theme of B. E. Patton's remarks before the Illinois Petroleum Marketers Association, in Springfield Aug. 18. Mr. Patton is member of a firm of accountants there which does considerable work for oil companies. He showed the importance of setting up each bulk or service station as a separate unit for bookkeeping purposes, in order to know if that particular property was making or losing money, and dwelt upon the importance of a perpetual inventory, to guard against losses and unrecorded sales.

YOUR business is governed by the same basic principles as any other jobbing or retail business, which must be observed if success is to crown your efforts. I presume, all of you are in business with the ambition to succeed and I know that you are interested enough to recognize the importance of adequate accounting records. By adequate records I mean reports and figures that will give you a comprehensive picture of your transactions. Your financial statement should show your total assets, and in what form, whether in plant, equipment, inventory, receivables or cash. It should also show all your liabilities, with the maturities of each and the relation existing between current or liquid assets and current liabilities. If a mortgage exists this amount should be considered in connection with a statement such as this compiled daily, weekly or monthly and you will find that your banker can advise you much more intelligently in financial matters.

The keeping of a perpetual inventory, on gas, oil, and grease is not difficult, as you have metered pumps and accurate gauges. The daily receipts of these items are added to the amount on hand at the start of the day's business and from this total deducted the amount sold during the day; the amount remaining should equal the amount in your various tanks and containers. This should be done daily to guard against faulty meters, hidden leaks and unrecorded sales.

If your employes know this to be the daily practice they will be more careful, because any shortage would necessarily reflect on their accuracy and integrity. Gasoline and oil, I suppose, it is from their greasy nature, have a tendency to follow the line of least resistance, and you cannot afford to disregard any measures for your protection. For those of you who sell other merchandise such as tires, accessories and miscellaneous merchandise items I would recommend a perpetual card inventory on the larger items.

Means of Testing Inventory

IF you are handling several lines of merchandise your purchases and sales should be classified accordingly. Then, knowing your margin of gross profit on each commodity, you can test a physical inventory at any time by deducting the gross profit from the sales and considering the remaining amount as withdrawn from the starting inventory and subsequent purchases. This procedure is only necessary on commodities which are not measured daily or carried on inventory cards mentioned before.

The question of receivables is of utter importance and needs careful watching. The amount invested in these accounts sometimes reaches a sum that seriously handicaps payment of your own obligations and under no circumstances should an account be permitted to run more than 30 days. In the case of jobbers supplying curb pumps and the smaller garages, cash on delivery is about the only safe plan, as the smaller places have a tendency to change ownership rather rapidly.

A comparison of the amount of outstanding receivables at the end of your accounting period with that of the preceding period will indicate whether or not collections are keeping pace with your charge sales, taking into consideration any fluctuation in price during the period. Charge sales should be absolutely discouraged as it is no more nor less than loaning your capital to the consumer for the period of the debt without interest in practically all cases.

In conducting a business such as yours it is usually necessary to invest a considerable amount in fixed properties, such as bulk plant, service stations, curb pumps and tanks, trucks and miscellaneous equipment. A complete record of the cost and location of each item should be kept, not only for your own information, but also for the purpose of insurance, taxes, depreciation, etc. The total cost of each selling unit should be segregated, including the cost of all equipment used by such unit, for the purpose of determining the proper amount of depreciation to each unit, which is part of your operating cost. Depreciation, I find, is often overlooked or neglected and, unless you protect yourself with suitable reserves, replacement time finds you without the funds to replace the worn out units.

Handle Each Unit Separately

A CONCERN operating several stations or units is often at a loss to know which is the best producer of net income, and unless records are kept by stations, it is merely guess work to say station No. 1 is more productive than station No. 4; for while No. 1 may do twice the volume of No. 4, yet No. 1's expenses may be more than twice that of No. 4 taking into consideration investment in station and equipment and distribution of overhead or indirect expense, which should be spread or divided in accordance with the volume produced by each station.

To determine the net result on each station it should be charged with all merchandise received and credited with all sales made by it. It should also be charged with all items of direct expense, such as labor, repairs, light, heat, water, telephone, insurance, rent, if not owned by the concern, and depreciation and taxes if owned by the concern. With these items considered you now have the net result before overhead or indirect expense is considered.

The items that usually constitute overhead expense, in an organization having both bulk and service stations, are all the bulk station expenses, including drivers' wages, truck maintenance, including gas and oil, office expenses and salaries, inspection charges, advertising taxes and other expense items not directly chargeable to any specific station. After ascertaining the total of these expenses you should apply each station's share of expense in accordance with the method outlined before. You now have all items of expense for each station, which enables you to determine the net result and eliminates guess work to a minimum.

This method may seem exhaustive and burdensome to you, but your records can be easily arranged so that this information is obtainable probably with no more effort than you now expend on your bookkeeping. If you are experiencing any difficulty or dissatisfaction with your present methods, consult with some good accountant who will no doubt be able to correct any existing faults.

Under the present income tax law it is important for you to have clear records, as in any controversy over net income the burden of proof is on the taxpayer. Such being the case, the taxpayer should protect his interests to the

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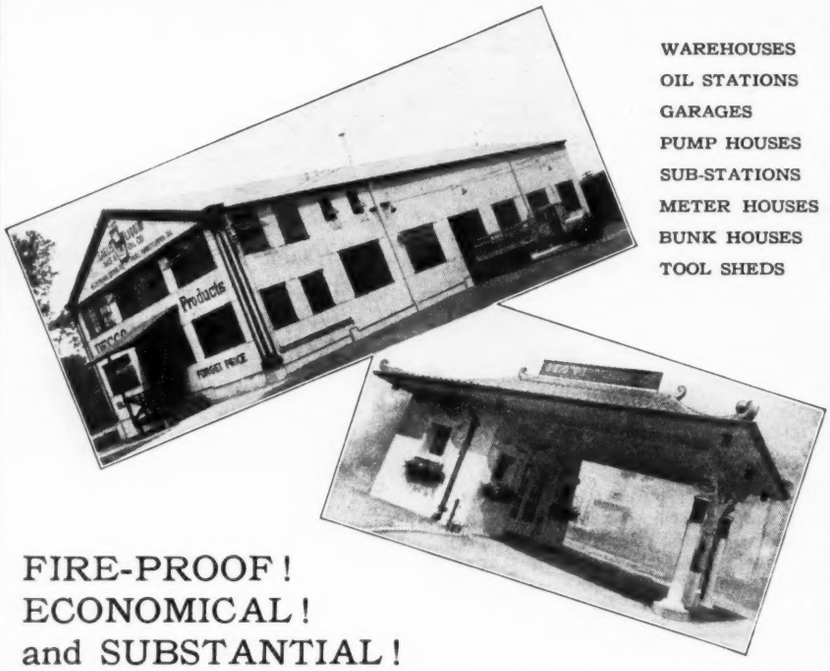

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fullest legal extent by keeping his affairs in order. The law for corporations differs in some respects from that for the individual and the average person has neither the time nor the inclination to familiarize himself with it sufficiently to protect his interests. Rulings are made daily by the treasury department that may seriously affect your business. This also should command your attention, for no good citizen relishes a controversy with his Government or its officials.

I expect each of you have some specific problem, peculiar to your own business, upon which I have mentioned nothing, but it has been my intention to speak only on the phases and problems that confront all of you. I sincerely hope that my few observations will benefit you now and in the future. System is a word that is sometimes overworked and abused, but no one will ever accomplish any great degree of success, without being at least to some extent, methodical or systematic in his transactions and the recording of his transactions.

Swan-Finch Has Chicago Brokerage Office

CHICAGO, Sept. 13.—The Swan-Finch Oil Corp., home office 522 Fifth Ave., New York, has opened a carload marketing department in Chicago. Bulk sales operations started early in August. William S. McDowell is in charge. He is well known in the oil community in Chicago. He has been working with the Swan-Finch organization in New York for the last three years but was in the lube oil sales department of James B. Berry's Sons Co., in Chicago in 1923.

Mr. McDowell is located in the Swan-Finch offices in Chicago at 537 South Dearborn street. E. S. Burns is general manager of the western department, embracing 21 middle western states. Besides its refinery in Buffalo and compounding plant in Chicago, the Swan-Finch Oil Corp., recently has contracted to market the output of three more refineries, one in Pennsylvania, one in Oklahoma and one in South Texas.

To Market Grease to Jobbers

HOUSTON, Sept. 9.—E. M. Armsby and A. N. Munhall, both of whom were at one time with the sales department of the Galena Signal Oil Co. of Texas, have contracted to distribute products of the Christian-Able Co. at Houston to the jobbing trade.

The Christian-Able Co., which owns a grease plant at Bellaire, a suburb of Houston, manufactures gear and transmission compounds. Sales offices will be maintained at 507 West bldg., Houston.

Furnace Oil

Contracted Over Seven Months

[Sept. 15, 1926—April 15, 1927]

LIMITED QUANTITIES ONLY

LORECO
FURNACE OIL

GRAVITY - - 30-36
FLASH (open cup) 150-170
COLOR - - DARK
COLD TEST - ZERO

Refined in a new and modern refinery, from specially selected crudes, produced from our own wells, LORECO FURNACE OIL is one of the quality group of Loreco petroleum Products.

There is no better seasonal opportunity than right now to push the sale of this high Quality product.

Your Inquiries Will Have Our Prompt Attention

LOUISIANA OIL REFINING CORPORATION

PRODUCERS - REFINERS - MARKETERS

FIRST NATIONAL BANK BUILDING

SHREVEPORT, U. S. A.

means prompt delivery and *service*

Users of Page Welding Wire and Electrodes secure not only perfect results from the finest product—but receive in addition the promptest kind of delivery service regardless of location.

This is made possible by the exclusive Page distributor system which covers the entire country. Complete stocks are maintained at all central points and service facilities are always available.

Standardize on Page Steel or Page Armco Welding Wire and Electrodes. Take the guess out of welding and assure an uninterrupted source of material and service.

Write today for sample of wire and further information. No obligation.

Page Steel and Wire Company
An Associate Company of the American Chain Co., Inc.
BRIDGEPORT, CONNECTICUT
District Offices: Chicago New York Pittsburgh San Francisco

PAGE-ARMCO PROCESSED
Welding Wire and Electrodes

TRANSIT Red Head TONGS are the only genuine Klein Tongs

Bulletin 5-C "Tools for Pipe Line Construction" on request

NATIONAL TRANSIT PUMP & MACHINE COMPANY
OIL CITY, PA.
District Offices: New York, Philadelphia, Tulsa, Cleveland, Pittsburgh, Houston and Denver

Wayco Enters Fuel Oil Trade in Detroit

DETROIT, Sept. 11.—The Wayco Oil Corp., owner and operator of 68 service stations in Detroit, has purchased a fuel oil bulk plant here which will be operated by an affiliated corporation to be styled the Oil Burning Fuel Co., Edward F. Schlee, president of Wayco, announced.

The plant just purchased has three 375,000-gallon storage tanks, five 25,000-gallon tanks, and two 15,000-gallon tanks, a total of 1,280,000 gallons storage. It also has a 10-car siding and a large garage.

Edward F. Schlee and his brother, E. F., started in the oil and gasoline business in Detroit a little more than five years ago. Four years ago they took in their brothers, A. G. and Dewey S. Schlee and organized the Wayco Oil Corp. Since then their business has expanded rapidly.

Their main plant was acquired a year ago. It had been a motor truck factory. It afforded them an extensive warehouse, garage, repair shop, and barreling plant. The company operates 51 tank trucks.

The original capital of the company consisted of $8,000 of which each brother contributed $2,000. The present plant and equipment of the company is valued at more than $1,000,000 and the annual business exceeds $2,000,000.

Install Gas Recovery Systems

The Pennsylvania Oil Products Refining Co., Warren, Pa., with a refinery at Eldred, Pa., has recently completed a gas recovery system in its refinery.

The Seneca Oil Works, Warren, has also placed in operation a gas recovery system which, in addition to gathering the uncondensed vapors from the stills, recovers the gasoline from the cracking still gases before burning the residue gas under the boilers.

The H. K. Dougherty Co., gas recovery systems of Bradford, Pa., made the installation in both of these refineries and Newton equipment was used.

The Forest Chemical Co., Sheffield, Pa., has placed an order for an absorption plant with the Newton Process Manufacturing Co. The installation will be made by the H. K. Dougherty Co.

Noble Opens Dallas Office

TULSA, Sept. 10.—The Noble Oil & Gas Co., Wright Bldg., Tulsa, has opened a branch office in Dallas, W. J. Schnur, salesmanager, announced. S. C. Cameron, who has been in the sales department here, will manage the Dallas office. Mr. Cameron has been with the Noble company for the past two years and formerly operated a marketing business here.

Badly battered but still in the running without leaks. A freight wreck wrought havoc with the shape of these Wheeling Steel Drums but not with their contents

TRIP-TESTED
to meet your shipping needs

WE have previously described how* a Wheeling one-time shipper selected at random from a day's drum production at our Portsmouth Works withstood an air-pressure test, during which 700 per cent overload was recorded, without leaks, though drum heads were distorted fully five inches.

Here is another test—a disastrous freight wreck. It is graphic testimony to the rugged journey-proof endurance of Wheeling Steel Drums. It is not likely your shipments will ever be subjected to such severe punishment. Nevertheless we exercise strict control over the quality and strength of Wheeling Steel Drums by controlling every step in their manufacture from mine to market. The result is a safety margin that insures extra service. That means economy to you, to say nothing of your own and your customer's satisfaction.

WHEELING STEEL CORPORATION, WHEELING, WEST VA.

Factory and Barrel Sales Division—Portsmouth, Ohio

WHEELING

STEEL DRUMS

"From Mine to Market"

*Copy of the advertisement will be sent upon request.

Typical Piping and Tank Layout, Three Pump Bulk Station

Drawn by the Engineering Department of a Large Marketing Company

Working Drawing Shows Layout For Three-Pump Station

CLEVELAND, Sept. 11

THE drawing on the opposite page represents an acutal working design from which a large marketing company builds its three-tank or three-pump bulk stations. The three tanks in the drawing may be considered as one gasoline tank, one kerosene tank and one lubricating oil tank, or one tank may be used for painter's naphtha, stove distillate or some other product at stations where lubricating oils are handled in drums. This is the same company whose layout for a single tank station was shown in the Sept. 1 issue of National Petroleum News, Page 51.

As shown, there is one pump for each product. Due to the impossibility of giving an accurate picture of the piping layout if the pumps had been shown in the drawing just as they are installed in the bulk station, these three pumps, driven by a single gasoline engine, are here shown set in a three-cornered arrangement.

As a matter of fact, this company mounts its three pumps in such installations on a specially designed concrete base, which also serves as the bed for the gas engine. Instead of one pump being geared direct to the engine as shown in the drawing, one of the pumps is placed at each side of the block in front of the engine and the third is mounted on a block above and between the lower two. The pumps are all three directly connected to the engine through a system of gears, which are shifted by means of a jaw clutch. With this arrangement, all three of the pumps can be operated at one time on the three different products, or one or two at a time can be operated.

The pumps used at this company's stations are rotaries most of them, in stations of this size, having a capacity of 100 gallons per minute.

The entire layout is shown here, from unloading of the tank car to loading of the trucks and filling cans. This company uses overhead unloading of tank cars and the overhead unloaders are seen in the cut. However, the piping layout would be the same, of course, for a station where the cars were unloaded through the bottom outlet valve with the exception of different unloading connections.

The suction lines from the tank car unloaders pass to the pump house, through the pumps and out to the respective storage tanks. Their course is labeled on the drawing.

As in the layout of the single pump station, one line serves both as a pumping-in and pumping-out line for each tank. The manifold system for each pump is clearly shown. In the lower left hand corner of the drawing are seen two small tanks marked "dump tanks." These play an important part in keeping an accurate check on tank wagon drivers and holding down losses. Although only two dump tanks are shown here, there is in reality one tank for each product handled by tank wagon out of the station.

When a driver comes into the station, if there is any oil remaining in his truck tank, he unloads it into the appropriate dump tank. Each tank is fitted with a gage glass so the amount put into the tank by the driver is gauged and he is given credit for it. After measuring, the oil or gasoline is at once pumped to the proper storage tank so the tank is left empty for measuring the material dumped by the next driver. The dump lines to the tank are shown as well as the dump tank pumping-out lines and how the latter are tapped into the main suction lines.

This piping layout could be followed without difficulty by any experienced pipe fitter.

Makes the Oil Company the Low Down Criminal of the Times, Does Prof. Ise

THE extent to which automobiles are used in this country not only represents an uneconomic use of gasoline—a waste of the nation's oil resources—but has brought about extravagance and waste in people's living and thinking, Prof. John Ise, professor of economics in the University of Kansas, sets forth in his new book, "The United States Oil Policy."

It is interesting to note that the announcement of this book by the Yale University Press, its publishers, says, "Although the subject of his work has been the cause of bitter political controversies, the author maintains the unbiased viewpoint of the historian and economist." To our mind just what Prof. Ise has not done is to maintain the unbiased viewpoint of the historian. He is extremely biased, not only against the petroleum industry, but apparently the business world in general. He does not acknowledge another side to the question of utilization of natural resources than practically locking the door upon them as far as the present generation is concerned.

The book is an out-and-out argument for extreme conservation. The professor would withhold this resource from the present generation except for such uses that some authority, presumably the government, might state with preferential uses. Through it, also, the author looks with sorrowing eye at the present generation and its way of living blaming the oil industry and automobiles for the times which they have befallen us.

"Many people are terribly bored whenever they are thrown upon their own resources for entertainment, and for such the automobile has undoubtedly satisfied a want, however unfortunate it may appear that part of our precious oil resources should have to be put to so low a use as the entertainment of such minds," he laments, and says again,

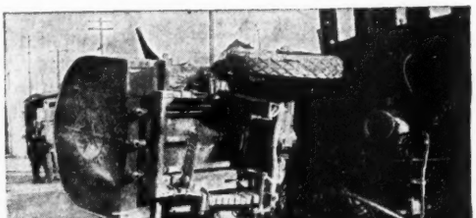
"Vast amounts of our irreplaceable reserves of oil are being used—we may well say wasted—by fat-bellied bankers and bourgeoisie riding back and forth, to and from their business, when they need nothing so much as a walk; by gay boys and girls in questionable joy rides, when they most need a little more companionship with their parents and contact with their homes; by youthful, and by mature, smart Alecks, who find here an exceptionally flashy and effective way of flaunting their wealth before those not so fortunate as themselves; and by all manner of men and women, who ride about our roads and streets in stupid, thoughtless, aimless, pointless diversion, the essential element of which diversion is the entire absence of any serious tax upon the mind, when they might be improving their minds with good books or with anything that might tend to mental enlightenment."

A long sentence, packed hard with incriminations, followed by the charge that "the automobile has in many ways tended to make our lives cheap and shallow and superficial, has fostered a general craze for speed and change, and a general neglect of thrift and economy and some of the modest virtues."

It would be interesting to know if these are Prof. Ise's impressions, or are backed by any of the statistics which are so easily available to show whether people are better off now than they were before the days of the automobile and gasoline pump. How would he explain that number of savings accounts depositors in 1925 was 43,850,000, nearly double the 22,415,000 of 1920; that membership in building and loan associations has increased from 4,962,000 in 1920 to 8,554,000 in 1925 and that the average per capita wealth has gained from $2819 in 1920 to $4406 in 1925.—V. B. G.

DENVER, COLO.—The Drive Oil Co. recently added a new outdoor Mona-Motor silent salesman at its filling station here, and also greasing equipment.

The Truck Tank of tomorrow is here today!



Hit "Head On" By a Trolley—Not a Rupture—Not Even a Pinhole Leak!

"One of our trucks was hit by a street car last summer and completely turned over, yet the tank did not leak nor was it damaged except for one rack being badly twisted" says a letter from the Gable Oil Co., Spokane, Wash.

A photograph of the collision is reproduced above. Apparently the tank took the full blow of the tram car. The tank was put into service the next day. No time was lost waiting for a new tank or for repairs. That in itself is a big item.

But more important is the fact that the tank was capable of retaining its hazardous gasoline contents in such an extreme emergency. A ruptured tank might easily have resulted in a fire or worse yet, an explosion. In this particular instance a tram car full of people might have been injured or killed.

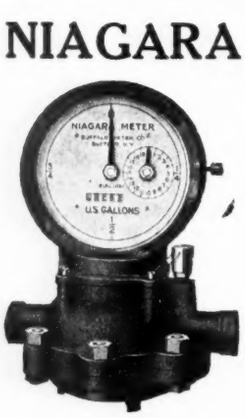
It is on such proofs of extraordinary performance as this that the *"Declaration of performance"* is based. Read it, not once, but several times to get the full force of what it means to you. You'll find it on page 31 of *The Truck Tank Hand Book.*

COLUMBIAN STEEL TANK COMPANY

EST'D 1894 TANKS FOR THE WORLD

1405-1625 WEST 12TH STREET KANSAS CITY, MISSOURI

NIAGARA GASOLINE METERS



for wholesalers and bulk stations are giving their owners the most accurate check on sales and deliveries that is possible. We offer a 30-day trial to convince you.

Send for the new illustrated catalog telling about Niagara Meters "for any oil that flows thru a pipe."

BUFFALO METER CO.

2889 Main St. Buffalo, N. Y.

New York University To Give Oil Courses

NEW YORK, Sept. 11.—The Wall Street Division of the New York University, at 90 Trinity Place, for the fall term have inaugurated two special courses of study pertaining to the oil industry.

One course, "The Oil Industry and Company Operations," designed especially for oil company employes, will be given every Wednesday evening from 5:15 to 7 00 p. m. starting Sept. 22 under the direction of Dr. Ernest R. Lilley and terminating May 11, 1927.

The other, "Oil Executives' Course," a more advanced series, will start on Sept. 27 from 5:15 to 7:00 p. m. and continue each Monday following until May 9, 1927. This course is prepared primarily for those actually engaged in the marketing of oil products and is also under the direction of Dr. Lilley. A feature of this course will be the advantage of discussion by use of the "round table" method which will be employed more often than the formal lecture system.

An outline of both courses is as follows:

"The Oil Industry and Oil Company Operations Course"

Under the direction of Dr. Ernest R. Lilley, author of "The Oil Industry."

PART I.

First term Sept. 22 to Jan. 12 inclusive.

Lecture 1.—Present Price Situation.—Crude and refined oil markets.

2. World Oil Industry.—Survey of organization and mechanism.

3 to 6. The American Industry.—(a) Development of various fields, (b) problems of operation, (c) present rank and future possibilities, (d) development of oil refining, and (e) transportation facilities.

7 to 10. Foreign Oil Developments.—(a) Problems in foreign operations, (b) Mexico, (c) South America, (d) Europe, (e) the Near East, and (f) the Far East.

11 to 12. Competing Industries. (a) The natural gas and gasoline industries, (b) shale oil, (c) coal, (d) artificial gas, and (e) natural asphalt competition.

13 to 15. Present Developments. (a) Location and nature of world markets, (b) economics of refinery location, (c) international control of reserves, (d) activities of corporations, and (e) future trend in the industry.

PART II.

Second term Feb. 2 to May 11 inclusive.

1. Oil Company Operations. (a) Introduction, (b) general survey and organization.

2 to 6. Production. (a) Methods of geologic exploration, (b) leasing procedure, (c) drilling technique and costs, (d) field equipment. (e) installation, (f) production costs, (g) special methods of oil recovery.

7 to 8. Crude Oil Marketing. (a) Construction and operation of pipe lines, (b) transportation costs, (c) values of crude oils.

9 to 12. Refinery Operations. (a) Skimming plants, (b) lub and wax making, (c) compounding, (d) blending, (e) cracking, (f) treating developments, (g) practices and costs.

13 to 14. Refined Oil Marketing. (a) Specifications on oil products, (b) handling of distribution problems, (c) methods of sale.

15. Valuation of Property.

"Oil Executives' Course"

This course covers a full year and will meet every Monday from 5:15 to 7:00

p. m. beginning Sept. 27 and continuing until May 9.

Under the direction of Dr. Ernest R. Lilley.

Special and part time students are admitted to the course and it may be credited toward the requirements for a degree by those with proper entrance qualifications.

—OUTLINE—

Lectures 1. Present Conditions in the Oil Industry.

2-3. Resume of Underlying Conditions. —(a) Sources and character of present oil supplies, (b) methods of refining, (c) costs, (d) economics of refinery location with respect to marketing of oil products.

4-11. Marketing and Use of Fuel Oils. —(a) Characteristics of available oils, (b) technique of industrial and marine oil burning, (c) use of oil in diesel and oil engines, (d) technical developments in small size domestic oil burning installations, (e) legal restrictions on oil burning and storage, (f) economics of competition with coal, (g) electricity and gas, (h) utilization of fuel oils in making gasoline.

12-19. Marketing and Use of Lubricating Oils.—(a) Theory of lubrication, (b) methods of lubrication of bearings, (c) steam engine cylinders, (d) oil and diesel engines, (e) gas engines, (f) air compressors, (g) gasoline engines, (h) preparation of oils and greases, (i) methods of distribution and sale, (j) tariffs and other regulations, (k) competition between lubricants of different bases.

20-27. Marketing and Use of Gasoline. —(a) Nature of the gasoline engine, (b) gasoline specifications, (c) volatility and knocking, (d) use of special blends and dopes, (e) substitutes, (f) cracked gasoline, (g) methods of distribution and retailing, (h) taxes and regulations, (i) economics of supply.

28-29. Kerosene and Burning Oils.—(a) Use and specifications, (b) refinery treatments, (c) marketing and foreign selling problems.

30. Paraffin Wax.—(a) Use, (b) preparation, (c) specifications, (d) marketing.

Any further information desired in connection with these courses may be obtained by writing to Dr. Lilley of L. P. Starkweather, Secretary at 90 Trinity Place, New York.

Take Over Blending Plant

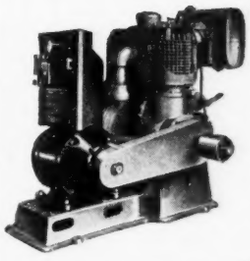
SAN FRANCISCO, CALIF.—The control of Castolene, Inc., which operates its own blending plant here, passed to Douglas S. Watson, H. Layer and L. J. Stovel the first of the year. These three individuals purchased the company pro-rata from former stockholders who still retain interests. A grease department has been added to its oil blending plant and factory branches have been established in Seattle, Wash., and Portland, Ore.

Business has grown five-fold during the past six months, according to Mr. Watson, managing director.

BUCKHANNON, W. VA.—The service station at Main and Locust Sts., of the Buckhannon Oil Co., was recently sold by that company to the Standard Oil Co. of New Jersey. The former company retains its service station between Kanawha and Depot St., as wll as its bulk station business.

ROCKY FORD, COLO.—W. P. Johnson, agent for The Texas Co. here, recenty purchased a new Dodge Graham Bros. truck.

MARCO ELECTRIC POWER and LIGHT PLANTS—Super Powered "New-Way" Engine by the 8 HP. AIR-COOLED



The MARCO is the only all purpose Power Unit.

Because

1. It is dependably powered by the splendid roller bearing "New-Way" Engine.
2. It has light weight with rugged strength.
3. The high efficiency ball bearing generator is weather proof.
4. Silent Chain Drive (enclosed) runs in oil.
5. Marco Units furnished with or without batteries.

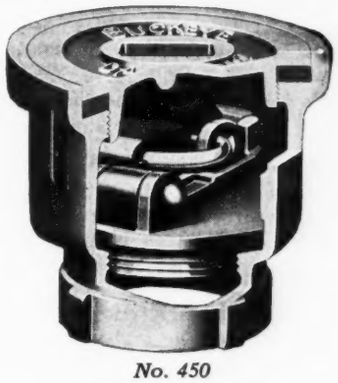
Ask for Catalog M-27

4 Sizes—32 Volts 2 K. W. 110 Volts 2, 2½ & 3½ K. W.

The Marco Light & Power Corporation
Lansing, Michigan, U. S. A.

The "New Way" Engine, which powers Marco, may be removed from its base to operate other units—such as pumps, hoists, etc.

Simple - Complete - Permanent



No. 450
Flush Fill Box

THE Buckeye Flush Fill Box meets your ideal perfectly. It is neat appearing. It is simple. It is water tight, frost-proof and strongly built for permanent service. It is quickly accessible and easily locked.

Both caps are cast brass and will not rust.

The locking lug is securely fastened to the inside cap so there is no possibility of losing it.

This extremely popular Fill Box is giving thoroughly satisfactory service in thousands of service stations all over the country.

Use the coupon below to get complete information about Buckeye Service Station equipment.

Buckeye Iron & Brass Works

356 East Third Street **DAYTON, OHIO**

Manufacturers of Quality Brass Goods Since 1860

Mail this Now!

BUCKEYE

BUCKEYE IRON & BRASS WORKS.
356 E. Third St., Dayton, Ohio

Please send me further information and prices for Buckeye Service Station Equipment.

Name .....

Address .....

Standard's New Gasoline, Esso, Has Compression Ratio of 6-1

NEW YORK, Sept. 10.

SIX months ago the Standard Oil Co. of New Jersey set out to make and market what is deemed the best motor fuel that could be made for the present day automobile. The fuel was "designed" according to the ideas of the Standard's technical men and put on the market under the name Esso.

What is the "best" motor fuel is, of course, a matter of opinion. What characteristics it should have, how it should be made and how it should behave in the engine are matters on which an argument can be started any time. The particular use to which the motor fuel is to be put is certainly a factor to be considered in establishing what is the "best" gasoline.

To the owner of a fleet of trucks or taxicabs, a fleet of coupes in which salesmen travel, or to a farmer with a gasoline burning tractor, probably the quality that speaks loudest is mileage. Assuming reasonably satisfactory qualities in other directions, what the operator of commercial vehicles wants primarily is the greatest number of miles of hauling out of his gallon of gasoline.

Some technologists will tell you that, in order to get the greatest possible mileage, it is necessary to sacrifice some of the snappy qualities that make travel in a passenger car a delight to the driver; others hold a contrary view.

At any rate, in designing Esso, the Standard technologists looked over the head of the truck and taxicab operator and the car owner who is compelled to count his pennies, and aimed at the driver who wants the best obtainable and is willing to pay for it.

They aimed to put out a gasoline that would have the same rating among motor fuels that the Rolls-Royce car and the Steinway piano have in their respective fields. Such a product, of course, would be costly to manufacture and the company put a price on Esso 5 cents a gallon above the tank wagon market price of its regular gasoline.

Supplants Ethyl Gasoline

ESSO supplants Ethyl gasoline as put out by the company before the sale of tetra-ethyl lead was voluntarily suspended a year ago last May, pending investigation of its health hazard by the surgeon general of the United States.

Ethyl gasoline was an anti-knock fuel, doing all that was claimed for it; but the Standard officials felt that it could be bettered greatly. Addition of tetraethyl lead to ordinary gasoline did not increase its volatility, nor give it easier starting qualities in the winter. In fact it did not do much of anything except stop the knock, and give somewhat smoother operation.

The Standard formerly sold Ethyl gas at 3 cents above the price of its standard motor fuel. The company officials decided that they could give the gasoline user relatively greater value in Esso at 5 cents a gallon premium than in Ethyl gas at 3 cents premium. They decided the ideal fuel must have high volatility, a low initial to permit easy starting, and very high anti-knock value.

According to Frank A. Howard, president of the Standard Development Co., a subsidiary which is in charge of developing new methods, processes and products, Esso possesses the following characteristics:

Gravity	59 (approx.)
Initial	100-110
Endpoint	390-395
Anti-knock value	no knock at 6 to 1 compression ratio.

The compression ratio of 6 to 1 is very high. There are no automobiles on the road, unless possibly special designed cars, that have so high a compression. That is about the ratio used in airplanes. With the average compression ratio of cars on the road around 4½ to 1 and the highest used in ordinary cars around 5 to 1, many might think that it was unnecessary refinement to make a fuel to perform satisfactorily under such high compression. This is believed to be the highest anti-knock value fuel on the market.

However, Mr. Howard says that tests demonstrated to the company's satisfaction that the excess of anti-knock value gives a sufficiently improved performance and increased factor of safety in the engines of lower compression cars to make it worth while.

Esso is made at all the company's refineries in volume according to the market demand for it in each district. It is made from a variety of crudes and gasolines made by at least two different cracking processes enter into its manufacture.

Standardize Anti-knock Value

IN making this luxury fuel, the Standard of New Jersey is following the policy that an article in National Petroleum News, Dec. 9, 1925, page 42, predicted would likely be taken up by the refining industry in general, as demand for anti-knock fuels increases and knowledge of how to make them to the best advantage in refineries increases also.

That is, first, standardize the anti-knock fuel, that is, make it to perform under a certain specified compression ratio or at a certain specified compression pressure in pounds to the square inch. The Standard of New Jersey has done this, fixing a compression ratio of 6 to 1 as the requirement for the operating ability of Esso.

Second, operate the cracking and other refinery equipment, in the light of increasing knowledge, so that all the light products turned out in the plant will lend themselves most readily to blending into a fuel that will of itself have many of the required characteristics or will require the smallest possible addition of tetraethyl lead, benzol or other anti-knock agent, to give it the required characteristics. The Standard is doing this also.

In manufacturing Esso, after the refinery has done its best in the way of turning out an anti-knock fuel, tetraethyl lead, or Ethyl fluid as it is called now, is added in the proportion necessary to bring up the anti-knock value of the fuel to the requirements of a 6 to 1 compression ratio. The cracked or blended product turned out at some of the refineries is of sufficient anti-knock value of itself so that no Ethyl fluid is added, Mr. Howard says. Perhaps benzol is used to bring the fuel up to the mark set in some cases.

However it is made, Esso is said to be uniform in anti-knock value and in volatility characteristics. The fuel is now being turned out in sufficient volume that it is on sale throughout all of the company's marketing territories. In some districts, of course, it goes over better than in others, notably in the sections where hills abound. It is selling in the greatest high test and benzol-blend marketing territories in the country, around New York, Washington and Baltimore. There are a large number of special fuels of all kinds in these territories at various premiums in price.

The company takes great pains to prevent anyone from using Esso for any purpose other than motor fuel. In the first place, the fuel is colored red, as Ethyl gas is, to distinguish it from other motor fuels. Second, each pump from which it is dispensed carries a warning placard stating that the fuel contains lead, cyclic compounds and aniline derivatives which make it unsuitable for use in cleaning clothes, in gasoline camp stoves, or any other purpose than to run an automobile engine.

The marketing of Esso was begun about April 1, and it was introduced with a widespread poster campaign and newspaper advertising. As demand for it grew, manufacture of it was begun at all refineries and increased as the market demand warranted. Its sale is reported to be increasing steadily.

Frechette's Service Station at Plattsburgh, N. Y., where a Foamite *Extinguisher recently proved its ability to kill extra-hazardous fires at the start*

"I would not be without one for $1000.00!"

On June 6th we received the following letter from Mr. W. A. Frechette, whose fine filling and service station at Plattsburgh, N. Y., is shown above—

> "Please ship Parcel Post a charge for my 2½-gal. *Foamite* Extinguisher.
>
> "I would not be without one for $1,000 if I could not get another like it! A Tourist drove into my Filling Station, and his tank would not hold the amount of gas he wanted, consequently it overflowed. While I was waiting on another car this fellow drops a lighted match and up shoots the flame and in 3 minutes I had the fire out with my Extinguisher (or rather yours)."

Hundreds of filling stations and thousands of their patrons now recognize that the only sure way to kill oil or gasoline fires is to smother them under genuine Firefoam from *Foamite* equipment.

An average-size station can be safeguarded with the *Foamite* 2½-gallon Hand Extinguisher, pictured above, or the *Foamite* 5-gallon Extinguisher. Larger stations need also the *Foamite* 40-gallon engine. *Extra recharges should always be kept on hand.*

We supply a handsome metal sign or "emblem of safety" where adequate protection is installed. See the coupon.

FOAMITE-CHILDS CORPORATION

Fire Protection Engineers and Manufacturers

790 Turner Street, Utica, N. Y.

Sales and Engineering Representatives in all leading cities

Foamite-Childs Corporation, 790 Turner Street, Utica, N. Y.

1. Our business should have better protection against fire. Send free literature or representative.

2. We already have Foamite-Childs Protection and want to display your emblem of safety. Install one without charge.

Name .....

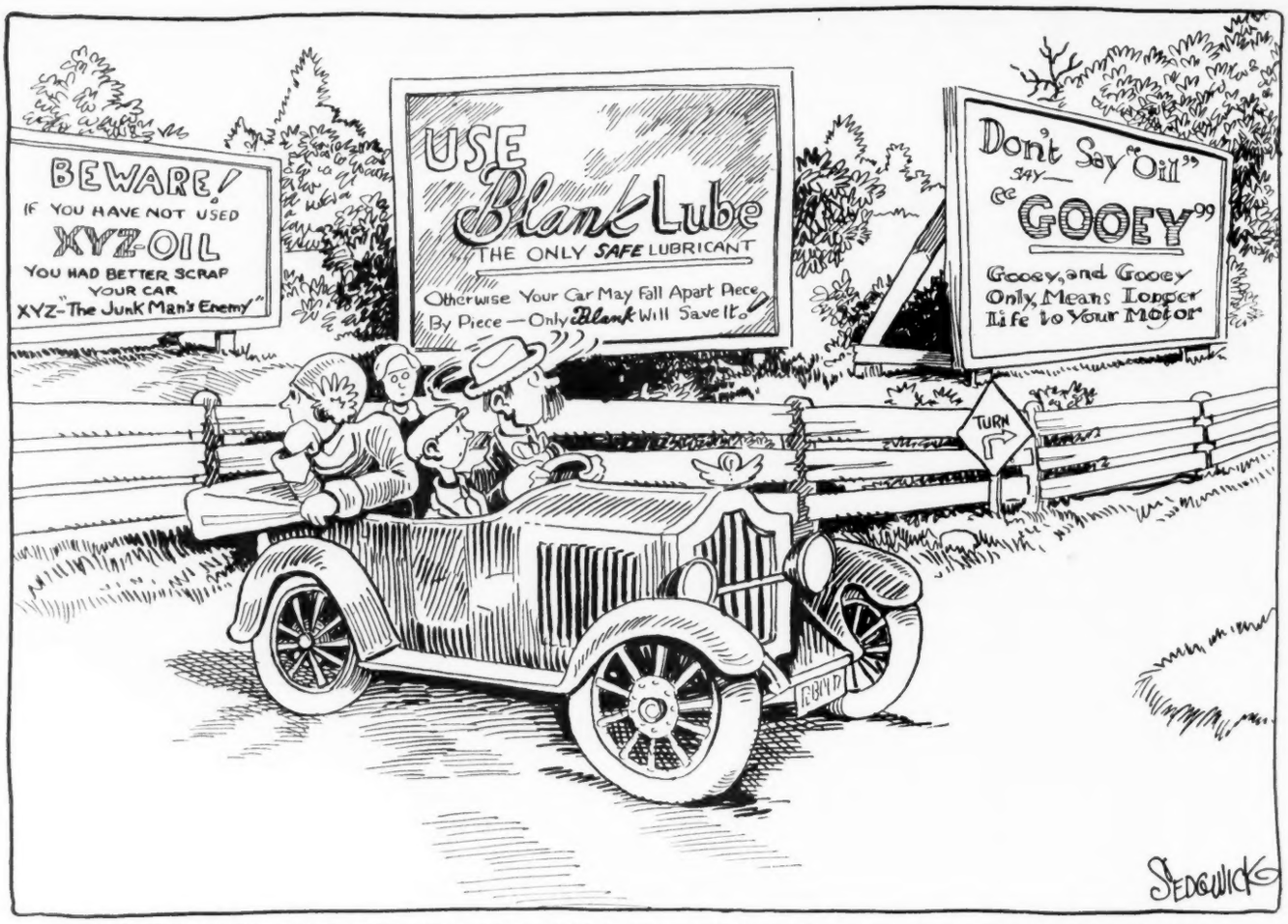
Street .....

City ..... State .....

Foamite-Childs Protection

A Complete Engineering Service

Against Fire



THE FAMILY ENJOYED THE NEW CAR IMMENSELY UNTIL THEY STRUCK BILLBOARD AVENUE

We See By The Papers—

Conscious and unconscious humor concerning the oil industry from the press of the nation.

National Petroleum News

The Presses Were Waiting

Editor of the Fayetteville, Tex., News got everything but the facts:

Last week we were visited by some oil people that were here leasing some land for the purpose of drilling an oil test. We were unable to secure the names of those that were here blocking leases, but we hope the drilling will commence and that oil will be found. They leased lands from E. C. Mever and L. O. Simank, and were looking for more. I do not know how much land they wanted to lease.

* * *

The Ultimate in Failure

Little Rock, Ark., Gazette muses on the sadness of dry holes:

Of all the disappointments which combine to make this earth a vale of woe, watered by humanity's salty tears, few are more complete and irremediable than the laborious and costly achievement of what the driller of oil wells knows as a "dry hole." Even a politician, snowed under at the polls, has hope left. But an oil well that contains no oil is simply 1000 or 2000 linear feet of hole in the ground, not even big enough across for its disgusted possessor to dive into and pull in behind him as he bids daylight an eternal farewell. It is as total a loss as a dead goldfish in a family that keeps no cat.

* * *

Probably Ex-Plumbers

Discussing the robbery of a filling station, the Bluffton, Ind., Banner says:

Similar methods were employed by the thieves about two years ago when a small sum of money was obtained. On that occasion the yeggmen left some of their tools behind.....

* * *

The Best "Indicator" Is Oil

Rayton, N. M., Republican, is hopeful:

Sunday more fossils and other substance indicating the presence of oil were drawn to the surface by the bailer.

How to Discourage New Competition

Editor of the Wagner, S. D., Eagle throws out a broad hint:

It might be of interest to some to know just how the O. K. Oil Company happened to locate here. Well, it was like this. They watched the local papers for several weeks, but never found a word in them about oil stations, filling stations or anything else, so they decided Wagner would be a good place for a live advertising oil station to locate.

* * *

The "Bossum" Is Quite Thick

From the Opelousas, La., Progress:

With the oil field Anse La Butte 30 miles south and Pine Prairie 34 miles southwest and with geologist indication favorable the chances are favorable for Melville becoming a great oil field. The oil well has already been sunk into the bossum of the earth 1800 feet.

* * *

No Fair Way to Spell It

From a Harvey, Ill., newspaper:

The new well, which was drilled by the Mexican Golf Oil company for the International Fuel and Petroleum company, is located but seven miles from Colonia where a number of Harvey people are interested in some land holdings.

The Editor's Viewpoint

National Petroleum News

Eliminate Agents As Price-Cutters

CHANGING the method of paying commissions on gasoline sales to agents for the big companies is the suggestion for lessening the vigor of price wars which comes to this publication from the secretary of one of the state oil associations.

This individual, forced through his position to take a hand in many a price war, goes on to point out that the method used by most companies now of paying a flat margin per gallon of gasoline—a cent, cent and half, or two cents, as the rule may be—means money in that agent's pocket if he is active in a price war, sniping for more gallonage here and there, sure of his own margin regardless as to whether the business he takes on is at a profit or loss to his company.

He suggests that the efforts of the agents of the big companies, which are often to have price wars carried on, would be thrown onto the side of building their business in a constructive way if their commissions were proportional to the dollars' worth of merchandise sold, rather than the volume; or, if based on the gallonage, were scaled down from a good fair margin per gallon when gasoline was, say 25 cents, to a much smaller margin when gasoline sold at some price obviously brought about by a price war, say 16 cents. Quoting from his letter, which is worth consideration and comment in oil marketing circles:

"In times of price wars the commission agents for the big companies benefit in a financial way. If they have a low price in their territory it means an additional gallonage to them. In turn their brother agents in nearby territory get anxious for the cut price in their territory, so that they may also participate in the "gravy". And thus the merry war is on.

"Each commission agent whose pay is based on 1½ or 2 cents per gallon knows he will benefit financially during a war; and the big companies, who have consistently preached big gallonage instead of profits, are "sold" by these same commission men on the idea that "bad stuff" is being practised in that territory and the cut price spreads.

"Now would not this be a good idea? **Have these commission men on contracts that would automatically reduce the per cent of their commission in times of "war".**

"Sniffers who will spend a day or a week in an endeavor to smell out one little tank wagon ticket that looks bad; nervous men with cameras whose chief joy is in finding a curb pump with a reduced price posted thereon; jealous bulk station agents who want to "even up" with an Independent jobber for the loss of some particular piece of business—all these would be eliminated under this plan, for they would be mighty sure of their ground before they would carry up a complaint."—V. B. G.

Oil's Tax Basis Always 100 Per Cent

OIL is a favorite product when it comes to taxation. In Oklahoma where a fight is now being made against the oil industry to raise the tax, a check shows that oil is paying at a far higher rate than any other class of property.

During recent years a tabulation from the sale of nearly 15,000 farms, 25,000 pieces of city real-estate and nearly 1800 farm loans shows that they have been assessed on about 40 per cent for tax purposes and about 40 per cent of the value which was placed on them by these transactions.

The average tax rate for a state, county, township, and school district purposes to the state varies from 28 to 30 mills. In the city the levy runs up to 40 mills. Oil is taxed on the basis of 30 mills, but it pays 30 mills on a full 100 per cent sales value—the only property so doing in Oklahoma, from which one could compute that oil is paying twice the rate of taxes that are being paid by other classes of property in Oklahoma outside of the city and even there it is paying much more.

The fight which the Mid-Continent Oil and Gas Association is putting up should be taken up by all in the industry, because taxing the oil business has become a very favorite pastime and by those who like to spend money for city and state governments.—W. C. P.

Recognizes Fundamental Truth

"EMPLOYES and employers and all of us must see and realize that wages and profits both come out of the same industry and that they cannot come from any other source. And neither can get out what is not put in."

The above statement would be expected from a leading banker. Possibly it is not what the average man expects to hear from a labor man, even though he is the leading labor man of this country. It was made by William Green, president of the American Federation of Labor, in an interview given to a staff writer of Printers' Ink.

This states the nub of business relations. However old the idea may be, it seems to be the hardest to have understood that the wages, the profits and the salaries of all must come out of the one business.

Mr. Green also put forth another striking thought for a labor man and that was "high wages and efficiency go together" and Mr. Green addressed this to no less than the assembled Taylor efficiency engineers of the country. This is an organization whose efforts to install a plan of compensation to pay the employe according to the amount of work that he does and to show him how he can turn out more products in a given time have been fought by labor bitterly and universally. Mr. Green agrees with the Taylor engineers that everyone must get more out of his hour in the way of products as—the only way to get a higher return in money per hour.

The oil industry is increasing its efficiency steadily, but in the last analysis it must get down and study the efficiency of the individual employe and show that individual how to get more effective work done for the oil company, whether it is selling, delivering gasoline, running a still or pumping a well. The oil companies must apply to the individual employe the same efficiency they apply to much of their mechanical equipment.

With this idea sounded by President Green of the American Federation of Labor, it should be easier for employer and employe to get together on the proposition.—W. C. P.

For the Bulk Station Owner

Illustration shows a typical Trahern pump job. This pump is built for unloading and transfer work at bulk stations and refineries. It is made in various sizes and arrangements for pumping liquids of any viscosity. Simple, compact, and dependable regardless of capacity demanded.

Write for catalog 50

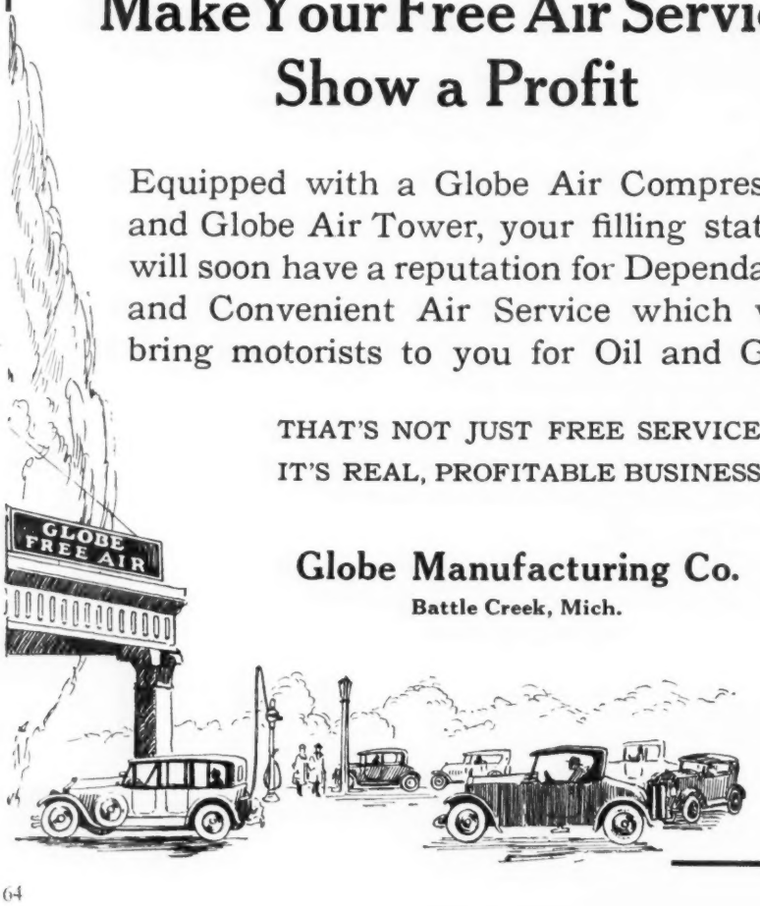
Geo. D. Roper Corporation

Rockford TRAHERN Illinois

Make Your Free Air Service Show a Profit

Equipped with a Globe Air Compressor and Globe Air Tower, your filling station will soon have a reputation for Dependable and Convenient Air Service which will bring motorists to you for Oil and Gas.

THAT'S NOT JUST FREE SERVICE
IT'S REAL, PROFITABLE BUSINESS



Globe Manufacturing Co.

Battle Creek, Mich.

Oil Concerns Below Average Increase

CLEVELAND, Sept. 10.—"Generally good" is the way business conditions in the Fourth Federal Reserve District during July and the early part of August are described in the monthly business review published by the Federal Reserve Bank of Cleveland.

Manufacturing was at high level, particularly iron and steel. The tire and rubber industry improved; conditions in clothing lines were mixed; the agricultural situation very satisfactory on the whole; retail trade was slightly ahead of last year, building still in good volume, though tapering off from last year.

In the second quarter net profits (after all deductions, but before dividends) of 129 large industrial corporations in the country were 21.1 per cent larger than in the same quarter in 1925.

Of 19 oil companies in a group of 197 industrial concerns, seven showed increases in net earnings for the first six months of 1926 and 12 showed decreases. Ten food companies showed increases and three decreases; thirteen steel companies increases, four decreases; eight automobile accessory companies increases and four decreases.

Of the same group 197 companies, 19 chemical concerns showed the highest per cent of gain in net earnings for the first six months over 1925 56.4 per cent; 12 motor companies showed a gain of 33 per cent over the previous year's figure; nineteen oil companies showed a gain of 9.4 per cent.

Install Sharples Process

TITUSVILLE, P A. — Installation has been completed and operation started by the Sharples process at the plant of the American Oil Works Co. here. Sharp stocks and motor oils will be manufactured. In addition to this equipment, over $150,000 is being spent on other construction work, including improvements at its old refinery.

WESTON, W. VA.—On Sept. 1 Hornbeck & Vigor, Ford dealers, acquired the filling station in the corner of their building which had been operated by Park L. Law. Standard and Esso products are being handled at present. Mr. Law has not announced his future plans.

BIG LAKE, TEX.—The Hoffman, Simon et al well on section 1, Reagan county, resumed operations recently after a three months' shut-down. The well is drilling at 2200 feet.

LIMON, COLO.—Mr. Seal of Flagler, Colo., purchased the Wright Filling Station here, and took possession on Sept. 8.

Take the Agency from Substituting Dealers

By Warren C. Platt
Editor

EACH week piles up the evidence on how this campaign against alleged oil substitution being conducted for a few national brand oil companies is building up ill-will for the oil industry. The further the information on the campaign goes, particularly the mis-information and the falsehoods of the parasites who are hanging on the edge of the campaign, the more grotesque it becomes and the greater harm it does the industry.

The oil industry is spending good money for a Committee on Public Relations at the present time to try and get its true self known to the public. Those oil companies that are helping this campaign against alleged substitution, if any oil companies today are helping it, are certainly working hard against the best interests of the Committee on Public Relations, as well as the best interests of the oil industry in spreading this mis-information or permitting it to be spread.

One of the worst offenders—as we've pointed out in previous editorials—against all decency, honor, honesty and truth regarding the oil industry is the so-called American Fair Trade League of New York. Whether it is just plainly incompetent and can't tell the difference between fact and fiction, or whether it is malicious and has no desire to tell the truth, presumably no one knows, but its unfair, untruthful, distorted, exaggerated and, we believe, even maliciously lying statements regarding the oil industry continue to spread over the country. When they find resting place in some paper or magazine it is not always in just the way that even the American Fair Trade League (Heaven save the name "Fair") writes.

Here is the September issue of the Ohio Motorist, a paper owned and operated by the Automobile Clubs of Ohio, who are members of the American Automobile Association. This organization is a conservative one, but, of course, interested in protecting the motorists. In the current issue this paper has condensed some of the press agent stuff put out by this Fair Trade League, so-called. It has used the head,

"SALE OF SPURIOUS OIL COSTS MILLIONS."

"New York Survey Discloses Loss of Money and Damages to Cars."

Then it quotes the Fair Trade League in its false statements that the automobile owners throughout the country are losing a billion dollars annually due to "spurious lubricating oils." In rewriting this story the editor of the Automobile Club paper said that the samples of these "spurious oils" were picked up at "gasoline stations" and that they were lubricants of an "inferior grade."

Then the editor made the following broad statement:

"Generally the automobile owner, when he is making a purchase of oil, does not know whether or not he is actually receiving the grade of oil asked for, or a grade which will not harm the internal workings of his engine."

We submit that that is a blanket indictment of every oil company—a most unfair indictment.

Then further Fred H. Caley, Secretary of the Cleveland Automobile Club after reading the dope of this Fair Trade League and evidently knowing nothing about it, permitted the editor to quote him as follows:

"Unquestionably, similar practices are being conducted by unscrupulous gasoline station attendants in Ohio and motorists are being mulcted of thousands of dollars each year in addition to the enormous cost of damages which their machines suffer on account of the use of spurious oils." Then the following:

"Several reports have reached the Club from motorists complaining that oils which were sold to them in good faith and represented to them to be of high grade and well known manufacture were actually deficient in lubricating qualities." One might observe there, of course, that there isn't a single motorist who can tell whether his oil is deficient in lubricating qualities or not without the aid of considerable engineering assistance, if not even chemical assistance. The chances are these motorists had something wrong with the mechanical parts of their cars and the garage man blamed it onto the oil, because the garage man has been listening to and believing in and making use of the propaganda put out by oil companies that everybody's oil is rotten and will wreck cars completely except the particular oil of each company.

Wants Law Similar to New York

Then in the last paragraph, "Ohio needs a law similar to the one which has just been enacted in New York State in order that these criminal practices may be stopped and the thieving oil bootleggers brought to justice," Mr. Caley said, "and the Club contemplates a campaign which will result in the enactment of this kind of legislation."

Here is just how and why a lot of the legislation that is enacted, and most of it that is proposed against the oil industry and every other industry, starts. If the oil industry is confronted with proposals in all the 48 states of the country of more laws to do away, so it will be alleged, with the so-called substitution of oil, all this adverse advertising, to say nothing of the fool laws which probably will be passed, can be blamed directly upon a few oil companies who will not police their own distributing outlets to protect their own customers. It can also be blamed upon the foolish and senseless sales talks that most every oil company indulges in, or permits its salesmen to indulge in, and that is, selling his individual oil as the only oil that will run a car, and intimating, if not even saying, that everybody else's oil is so poor that the car will crumble to dust around the next corner.

The New York law referred to is a most peculiar one and one wonders if it can really be good law, because it permits an oil company suing a dealer for not to exceed $100 damages, where the oil company is able to prove that the dealer substituted on that oil company's brand. There is no objection, of course, to anyone taking $100 away from such a dealer, only the experience of the oil industry has been that the average dealer who is of the type that he would substitute generally isn't worth $100 net. Many an oil company would like to collect less than $100 in unpaid bills from these dealers.

It might be more sensible if the law were to be changed in New York State and, if necessary, this form of law passed in every state, providing that, in case any oil company had reason to believe that a dealer was substituting on its brand of oil, that oil company be required forthwith to remove all its signs from that dealer's place of business—to remove all the alleged products of that oil company from that dealer's place of business and to do everything else necessary to see that no employe of the oil company permitted that dealer to act as its agent or representative.

Take Away the Oil Agency

In plain English, and in common business sense, one of the quickest ways to stop this substitution is not to let the substituting dealer sell any more oil. If one national brand

man finds a dealer substituting on him, he should not only discontinue that dealer as his agent, but he should notify every other company that is in the oil business and all those companies should withdraw their oils and signs from that dealer, if he is representing them, and refuse to sell him thereafter.

In other words, if you have a crook working for you the quickest and sanest way to stop him from ruining you and your trade is to fire him.

What the average national brand oil company has overlooked is that, in common business practice and in common sense and even at law, the responsibility is on the seller to see that his agents and representatives and distributors deliver a trade-marked article to the public in the same form in which it is produced in the first place. It is the duty and the obligation of the manufacturer and original seller of that to see that that is done. The task does not devolve upon others in the industry or other business interests to do it. If a business man sets up a means of distribution through such a character of people, or covering such a wide expanse of territory that he cannot guarantee to any reasonable extent that the ultimate consumer will get the original article that he is manufacturing and selling, then it is up to the manufacturer and seller to find some other way to get his article to the consumer, or discontinue business.

It certainly would be the height of folly to require Marshall Field & Company in Chicago to pay the cost and stand the burden of seeing that every merchant, shop-keeper, hole-in-the-wall-shyster who operates in the city of Chicago delivers to the ultimate consumer exactly the thing that some manufacturer off in Connecticut had manufactured when that manufacturer himself was too indifferent or too careless to see that the public got the thing that he was making. Yet that is practically the argument back of this campaign on so-called oil substitution. The campaign promoters want the legitimate oil companies of the country, who through their bulk stations and good dealers are distributing nearly all the oil and gasoline of this country, and who are not bothered with substitution, to take the responsibility and even pay the cost of seeing that their national brand oils are properly and honestly distributed.

One California Ordinance

These promotors have carried that so far that, out in one southern California town, they have an ordinance whereby they assess every service station in the town so much a year with which the town hires a man to police the sale of national brand oils for that is what it amounts to. In other words, the Standard Oil Company of California, the Union Oil of California, the Associated Oil, Richfield and others who have bulk and drive-in service stations in that town and who are selling a good share of the oil and gasoline used in that town, and free from substitution, have to go down into their pockets and pay the cost of a policeman whose sole activity is to help the national brand oil companies come in and sell their products against the products of these California companies.

We asked some of those companies why they stood for it and they said that it was cheaper to stand for it in that one case than to fight it. However, we insist, as we have insisted right along, that, whether it is a big company or a little company, if an injustice is being done, that company should get out and fight and the public opinion, just as the oil industry opinion will support that company.

The obligation is on the manufacturer and original seller of the goods to see that they reach the ultimate consumer in the way that the manufacturer wants them to. The obligation certainly is not on his competitors. They should not be called upon to contribute to any expense of policing his means of distribution, nor should they and their goods be attacked in a campaign that might tend to bolster up this manufacturer's means of distribution.

Again let us say that we are against substitution, but we are also against any campaign that seeks to crucify the honest, legitimate oil industry which is distributing 95 per cent to possibly even 99.9 per cent of the gasoline and motor oil of the country and which gasoline and which motor oil is rendering excellent service to the automobile owners.

Cooperative Method Used in Financial District Wildcat

NEW YORK CITY, Sept. 2

WITH baited breath a crowd of the most prominent oil men in the East attended the spudding in of the H. L. Doherty No. 1 well on August 26. This well is on what is known as the Amon G. Carter watermelon lease in the 24 State Street tract.

This field is reached by elevated train, subway, automobile or trolley car, but mostly on foot. It lies near the southernmost tip of Manhattan Island, and up to this time has been condemned by the oil fraternity because of a dry hole drilled just back of the ice box. Julius Fohs, discoverer of Mexia, persuaded Mr. Doherty to make another attempt and arrived a few minutes before the rest of the crowd in order to stake out a location. He directed that the tools be laid down on a level spot about two rooms directly west of the scene of the former failure.

Because of a delay caused by the discussion of a legal question raised by Judge Beaty, and participated in by Guy Wellman, assistant general counsel of the Standard Oil Company (N. J.), Axtell Byles, head of the Tide Water-Associated, Bill Boyd, lay counsel of the American Patrolmen's Institute, or something like that, and Frank Coates, the silent spokesman of the Doherty interests, three injunctions were served on behalf of the Dubbs process, causing abandonment of original plans. E. M. Clark, an authority on cracking, was reached on the telephone and advised that the melon be suspended two feet, 3½" from the base of the derrick and then allowed to drop. This is known as the old Missouri cracking method.

While this recommendation was being considered by the executive committee of the Institute the colored drilling crew spudded in the well. In the rush that followed three innocent investors were killed. Fortunately, all of the oil men were on another part of the lease inspecting a waterwell at the time. This well is known as the Dick Waterwich. It produces White Rock, Silver King, Aquazone and Poland, and tests have shown that it is excellent for washing dishes.

After the bodies had been removed Mr. Doherty set up a rotary and began to drill. He had hardly started when Edward L. Prizer of the Vacuum discovered the cord that pulled the noon whistle and all work was suspended to give the crew an opportunity to see what the neighbors had sent in. The usual plain oil camp fare was served, consisting of caviar, queen olives, chicken and potato salad, sandwiches, cake, coffee and coronas. In the check up that took place the following morning it was found that only 16 knives, three silver punch bowls, a chaise lounge and a dozen spoons were missing. This is considered a record for an oil gathering, but an analysis made by the Doherty statistical bureau pointed out that most of the guests wore thin summer suits which are practically without pockets. Earl Sinclair carried a brief case.

After tea had been served the guests broke up into groups, some of the younger men taking turns riding back and forth on the electric bed which runs from State Street to the East river on a standard gauge track while the older men played squash and checkers. The Fuller Construction Company estimates that the lease can be put in order again in about three weeks.

Big Gain in Natural Gasoline Production In First Seven Months of 1926

By J. C. Chatfield
N. P. N. Staff Writer

TULSA, Sept. 11.

STOCKS of natural gasoline held at plants in the United States were reduced during July for the first time in seven months according to reports of the U. S. Bureau of Mines just issued. Four sections of the country reported stock reductions while three areas reported very minor increases. The total reserve on July 31 amounted to 26,461,000 gallons, representing 7.4 days supply at the current rate of shipment.

Production of all plants was increased a little over 3,000,000 gallons to a total of 110,359,000 gallons in July, a daily average of 3,560,000 gallons. This is approximately 3,000,000 gallons below the peak reached in March but it should be remembered that March is a much more favorable month than July due to differences in temperature.

Shipments reached a new peak in the history of the industry, totaling 111,205,000 gallons, an average of 3,587,000 gallons per day. The big increase in shipments was made from plants in the Mid-Continent states and in California. Other areas held about steady.

Production Mounts First Half

PRODUCTION of natural gasoline in the United States has increased 25.2 per cent during the first six months of 1926 as compared with the first half of last year according to figures compiled by the U. S. Bureau of Mines. There has been an increase in production in every division, eastern, middle-western, Rocky Mountain and California.

In point of volume the Mid-Continent has shown the greatest increase of any field. The states of Oklahoma, Kansas, Texas, Louisiana and Arkansas increased their production 80,926,000 gallons as compared with the first half of 1925, an increase of 26.9 per cent.

California manufacturers boosted their production 39,610,000 gallons, an increase of 28.5 per cent. During the first half of 1925 manufacturers in the Rocky Mountain territory produced 14,000,000 gallons of natural gasoline. The first six months of this year they increased their production 5,432,000 gallons, an increase of 38.8 per cent.

In the eastern fields the increase in production amounted to 11.5 per cent and in the Indiana-Illinois territory the increase was 11.2 per cent.

Within the Mid-Continent territory Oklahoma and Kansas led in the amount of increase. In these two states alone production was increased 58,155,000 gallons or 31.4 per cent. Texas was next in line with an increase of 18,054,000 gallons or 20.2 per cent while Louisiana and Arkansas increased production only 4,717,000 gallons or 14.9 per cent. Complete figures by months are shown in Table No. 1.

Larger Percentage

PRODUCTION of refinery gasoline has failed to increase as rapidly as that of natural gasoline with the result that there has been a constantly larger percentage of natural gasoline available for use. Prior to 1925 the peak production of natural gasoline as compared with refinery gasoline was in 1922 when one gallon of natural gasoline was produced for every 10 gallons of refinery gasoline.

During the first six months of 1925 natural gasoline represented 9.5 per cent of the total gasoline production of the United States. As demand for the product became keener manufacturers increased their production by the installation of portable plants, improvement of existing plants and the installation of new plants on all new gas which became available.

As a result of this building campaign natural gasoline production was 11.1 per cent of the total gasoline production of the country in December and reached a peak of 11.2 per cent in March. In April the percentage dropped to 10.8 and in May to 10.2. In June natural gasoline represented 10.04 per cent of the total production of motor fuels in the country. For the first half of the year natural gasoline production was

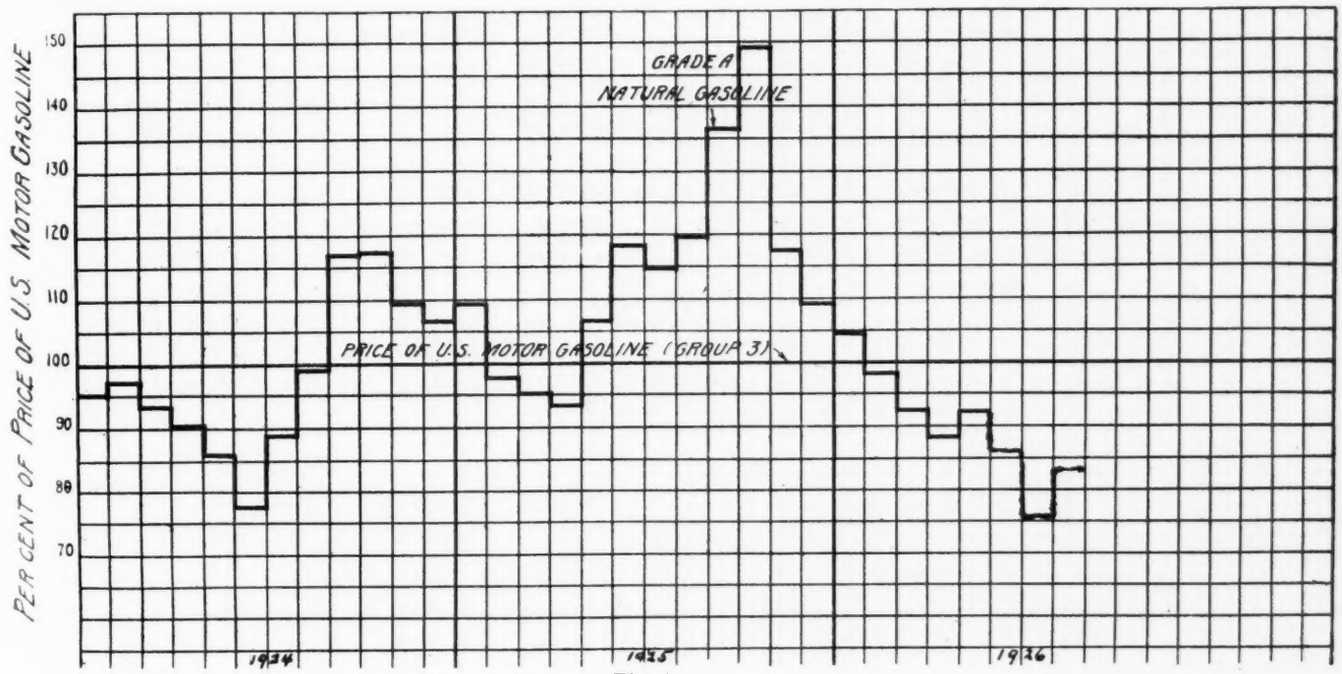


Fig. 1

Fig. 1. Relationship of Group 3 Market for Grade A to 58-60 U. S. Motor Gasoline. Grade A price is expressed in terms of percent of price of U. S. Motor Gasoline.

646,081,000 gallons while total gasoline production was 6,068,300,000 gallons so that natural gasoline represented 10.6 per cent of the total.

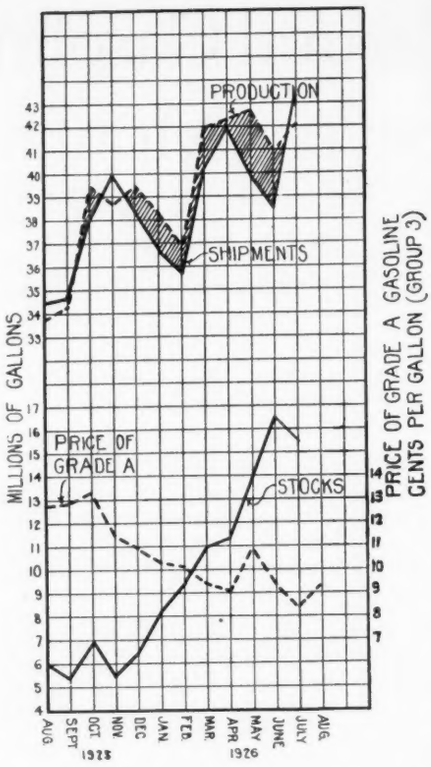
Consumption Lags

UNTIL July shipments of natural gasoline did not keep pace with the increase in production in most parts of the country. On June 30, stocks of natural gasoline were nearly double those held by manufacturers on December 31, 1925.

As compared with stocks of refinery gasoline held by manufacturers in the United States the reserves of natural gasoline, even after the marked increase, are insignificant. Total reserves at all plants on June 30, were 27,307,000 gallons which represented only 7.8 days' supply at the June rate of shipments. On December 31, 1925, total stocks were 13,731,000 gallons, representing only 3.8 days' supply at the December rate of shipment.

Manufacturers of natural gasoline, however, are neither equipped to handle any large surplus of their product, nor would they be inclined to create a reserve under ordinary conditions. Apparently the policy of the natural gasoline industry is one of selling their production from day to day at the best going price the trade will pay. Losses by evaporation during storage have been cut down by pressure storage installations and by lines which conduct vapors back through the plants but manufacturers still hesitate to hold their material for better markets.

This policy of keeping their goods moving probably is the chief reason why



Production and shipments of natural gasoline in Oklahoma and Kansas, stocks, and price of Grade A, cents per gallon Group Three

the natural gasoline market reacts so quickly to minor changes in demand as compared with production. The total increase in natural gasoline stocks of the entire country during the six months ending June 30, was only 13,576,000 gallons, an amount which would not be considered an excessive stock in the off season by a single 15,000 barrel refinery. And yet natural gasoline prices declined steadily during the first half of the year.

Fig. 1 is a chart showing the course of production, shipments, stocks and the price of Grade A gasoline in Oklahoma from August, 1925, to the end of July. Stocks of natural gasoline were reduced slightly in Oklahoma in September and again last November. There was a slight increase in stocks during October in spite of the fact that shipments jumped up as usual during that month. From the first of December to the end of June there was a constant increase in stocks.

Natural gasoline markets have been advancing steadily since the early part of August with the result that the price of Grade A is now well above 10 cents per gallon. Shipments have been on the increase for more than 30 days and many manufacturers report that they have cleaned up their surplus stocks of material.

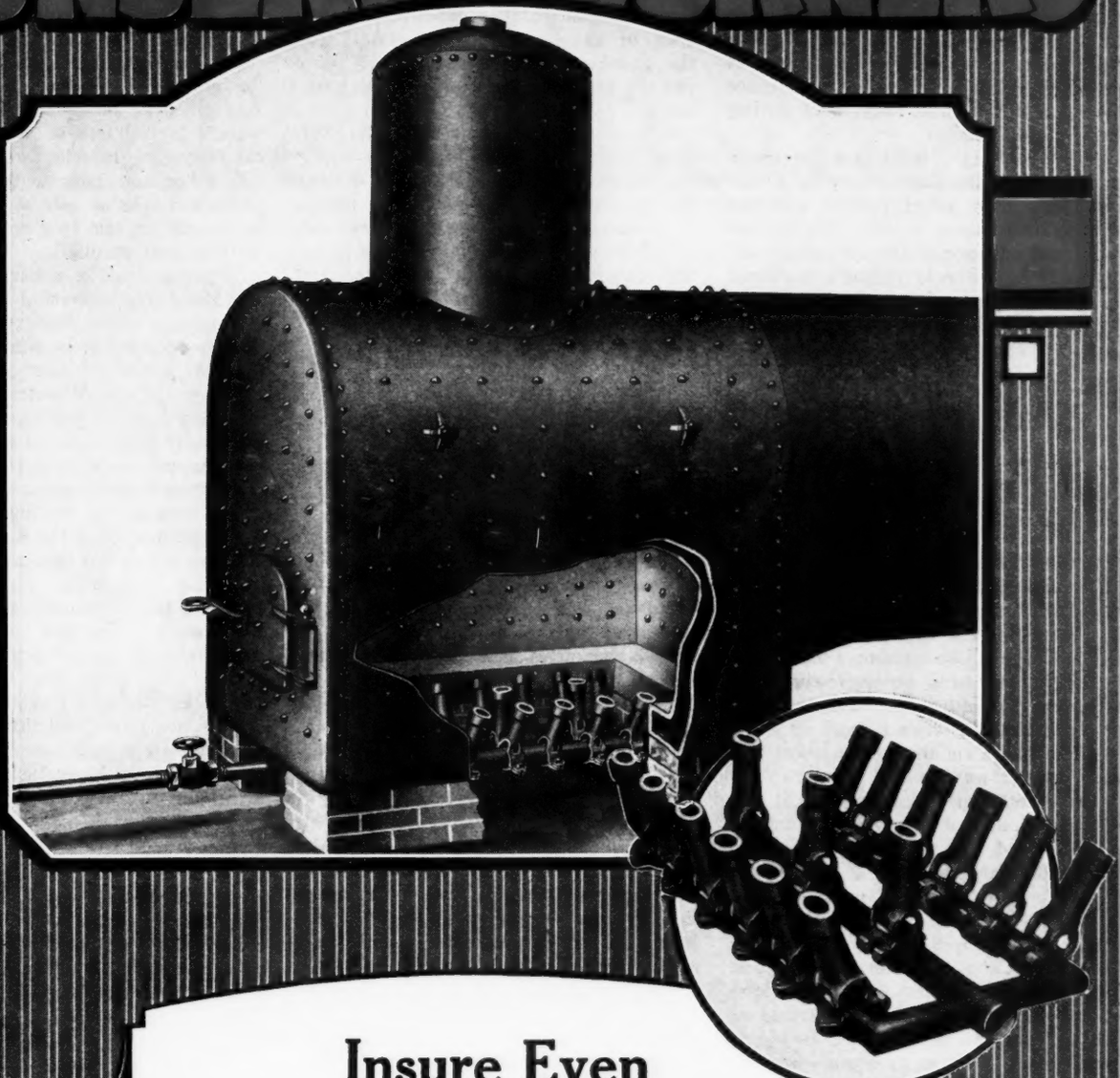
Although no government reports are available for August it is considered probable that consumption is still above production and that stocks are still falling. In normal times refiners begin to increase their takings of natural gasoline in the early fall as jobbers begin to demand a volatile gasoline.

This year manufacturers of natural gasoline are looking forward to a greatly enlarged demand for their product from refiners. They believe that the tendency of the trade will be to specialize on 60-62 gasoline as cooler weather sets in to meet the competition of The Texas Co. In states where motorists were educated by advertising to the

Table No. 1—Production, Shipments and Stocks of Natural Gasoline, by Refining Districts, During First Six Months of 1926. (Gallons)

Period	Appalachian	Indiana Illinois etc.	Oklahoma Kans. etc	Texas	Louisiana-Arkansas	Rocky Mountain	California	Total U.S.	Daily Total Average
January	11,200,000	1,800,000	38,300,000	17,600,000	5,800,000	2,300,000	29,000,000	106,000,000	3,419,000
February	10,100,000	1,700,000	36,700,000	16,300,000	5,500,000	2,600,000	27,100,000	100,000,000	3,571,000
March	10,200,000	1,800,000	41,900,000	19,100,000	6,200,000	3,400,000	30,547,000	113,147,000	3,650,000
April	8,694,000	1,588,000	42,224,000	18,260,000	6,006,000	3,569,000	29,276,000	109,617,000	3,654,000
May	6,580,000	1,296,000	42,640,000	18,366,000	6,454,000	3,784,000	31,166,000	110,286,000	3,558,000
June	5,758,000	1,097,000	41,091,000	17,728,000	6,257,000	3,779,000	31,321,000	107,031,000	3,568,000
First 6 Mos. 1926	52,532,000	9,281,000	242,855,000	107,354,000	36,217,000	19,432,000	178,410,000	646,081,000	3,569,000
1st ½ 1925	47,100,000	10,400,000	184,700,000	89,300,000	31,500,000	14,000,000	138,800,000	515,800,000	2,850,000
% Change	+11.5%	+11.2%	+31.4%	+20.2%	+14.9%	+38.8%	+28.5%	+25.2%	.....
Total 1925	94,200,000	21,500,000	403,800,000	184,700,000	64,800,000	32,700,000	303,200,000	104,900,000	3,027,000
	Shipments							**Shipments**	
January	11,112,000	1,788,000	36,668,000	16,733,000	5,623,000	2,044,000	28,783,000	102,751,000	3,314,500
February	10,151,000	1,619,000	35,620,000	16,585,000	5,721,000	2,573,000	27,137,000	99,406,000	3,550,200
March	9,928,000	1,807,000	40,269,000	18,051,000	6,126,000	3,383,000	30,513,000	110,077,000	3,550,800
April	8,540,000	1,585,000	41,923,000	17,916,000	6,182,000	3,592,000	29,246,000	108,984,000	3,632,800
May	7,140,000	1,318,000	39,861,000	17,538,000	6,323,000	3,728,000	30,946,000	106,854,000	3,446,900
June	6,163,000	1,167,000	38,575,000	17,315,000	6,073,000	3,772,000	31,368,000	104,433,000	3,481,100
6 Months	53,034,000	9,284,000	232,916,000	104,138,000	36,048,000	19,092,000	177,993,000	632,505,000	3,494,500
	Stocks							**Stocks**	
Jan. 31	3,063,000	241,000	8,196,000	3,034,000	1,226,000	333,000	887,000	16,980,000	.....
Feb. 28	3,012,000	322,000	9,276,000	2,749,000	1,005,000	360,000	850,000	17,574,000	.....
Mar. 31	3,284,000	315,000	10,907,000	3,798,000	1,079,000	884,000	884,000	20,644,000	.....
Apr. 30	3,438,000	318,000	11,208,000	4,142,000	903,000	354,000	914,000	21,277,000	.....
May 31	2,878,000	296,000	13,987,000	4,970,000	1,034,000	410,000	1,134,000	24,709,000	.....
June 30	2,473,000	226,000	16,503,000	5,383,000	1,218,000	417,000	1,087,000	27,307,000	.....
End 1925	2,975,000	229,000	6,564,000	2,167,000	1,049,000	77,000	670,000	13,731,000	.....
Change during 6 Months	—502,000	—3,000	+9,939,000	+3,216,000	+169,000	+340,000	+417,000	+13,576,000	.....
% Change	—16.9%	—1.4%	+151.4%	+148.4%	+16.1%	+441.5%	+62.2%	+98.8	.....

CONSERVO BURNERS



Insure Even Distribution of the Fire

That the CONSERVO Burner provides for evenly distributing the fire over the boiler's entire heating surface is apparent at a glance. This design, and our use of the famous Bunsen principle, which proportions the air and gas mixture so as to consume ALL the gas and utilize ALL its heat, are the factors which account for CONSERVO'S supremacy in its field.

The standard report on this burner from operators throughout the world is "more heat from less gas." See our nearest store.

"If CONTINENTAL Sells It, There Is No Better"

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General Offices: St. Louis

Export Office: 2 Rector St., New York
London Office: 316-317 Dashwood House, Old Broad St., E. C. 2

CONTINENTAL

Table No. 2—Production, Shipments and Stocks of Natural Gasoline, July, 1926

	Appalachian	Indiana Illinois	Oklahoma Kansas	Texas	Louisiana Arkansas	Rocky Mountain	Calif.	Total U.S
Stocks June 30	2,473,000	229,000	16,503,000	5,383,000	1,218,000	417,000	1,087,000	27,307,000
July Production	5,224,000	1,146,000	42,245,000	18,404,000	6,537,000	3,636,000	33,167,000	110,359,000
July Shipments	5,369,000	1,112,000	43,191,000	18,080,000	6,649,000	3,624,000	33,183,000	111,205,000
Stocks July 31	2,328,000	263,000	15,557,000	5,707,000	1,106,000	429,000	1,071,000	26,461,000
Ratio Shipments to Production	102.7	97.0	102.2	98.2	101.6	99.6	100.04	100.8

value of light gasolines even prior to the Texas campaign it is thought likely that distributors will feel the pinch of The Texas Co. competition even more keenly this fall than they have during the summer months.

The new high level for kerosene reached after the June slump is a factor which may affect natural gasoline sales again to some extent. During the first rapid advance of the kerosene market early in the year refiners increased their production of burning oils to a marked extent. The increase in production was made at the expense of heavy ends of gasoline with the result that the gasoline produced was much more volatile and required less natural gasoline.

Kerosene production in the Mid-Continent field at the present time is below the level reached in the spring despite the present highly satisfactory prices. It remains to be seen whether refiners will increase their production as gasoline demand diminishes in winter and thus decrease their purchases of natural gasoline again.

Drilling Contractor Sets Up Bonus To Cut Down His Fishing Jobs

WOOSTER, O., Sept. 10

"YES," observed Mr. Klise, "the drilling contractor has his troubles. He has about as many as anyone who is working at anything else in the oil or gas business and fishing jobs make up a big part of the grief. We have, however, eliminated 90 per cent or better of this class of trouble—wait a minute while I knock on wood. So far we have cut them down about that much, haven't we, Ben?"

"Ben," otherwise known as B. F. McCann, thought it over for a minute or so and agreed.

Mr. Klise, more formally J. J. Klise and more informally, "Happy," is president of the Kemrow Co., which is a fairly recent expansion of the well known firm of Klise-Eckstein-McCann Co., now the biggest drilling contracting firm east of the Mississippi. It has more than 30 strings of tools in operation in Ohio and is adding from time to time to its equipment. Included in the company's assets are producing properties in several counties of Ohio and in Wichita county, Texas, the latter acquired from Rising, Ozias and Wilson, whose initials go to make up the last half of the company name.

To get back to the method employed in cutting down fishing jobs: The bonus system put into effect the first of April of this year is basically responsible for the changed appearance of operations. It provides to the driller and the tool dresser a bonus of 15 cents for each day saved from average completion time, the bonus to apply for every day worked.

The company has divided the territory in which it operates into districts and worked out an average of the time required to complete a well. It has been drilling long enough in this part of the country and has drilled enough wells to afford a number of records on each district. The average of the time is taken as the mark to shoot at—or, rather to beat.

Bonus For Saving Drilling Time

Holmes county, Ohio, for example, is classed as 60-day completion territory. If a crew completes a well in 50 days, the bonus amounts to 15 cents times the 10 days saved, or $1.50 a day more pay for each of the 50 days it required. Thus, the driller and the tooldresser would each draw $65 more for the job than the regular scale.

"At first glance it is a little hard to figure where we are ahead," said Mr. Klise. "We get no more for the job and our labor cost is higher. Using the 60-day example, the driller, at $8 a day, comes within $15 of drawing as much in 50 days as he would in 60 without the bonus.

"The difference to us is that it enables us to keep the tools moving and complete more wells and, so far, it seems to give us a longer life for equipment. Fishing jobs come high and so does replacement of equipment broken in service."

"But," put in a visitor," doesn't this plan cause the crew to tear their shirts, as the saying goes, trying to rush the well down and get the bonus? Seems to me it would promote carelessness, rather than prevent it."

"It might be mentioned that there is an ironclad rule that goes along with this," replied Mr. Klise. "That is that nothing is to be run into the well that looks as though it had a chance to fail. Not a joint of pipe that looks in the least unserviceable is to be run. If a 'cracker' is at all suspicious looking, it is to be discarded and a good one used. Every move is to be made with the idea of keeping out of trouble.

Crew Watches For Faulty Material

"Instead of this bonus having the effect you mentioned, it works just the other way. The driller knows that, if he gets into a fishing job, blooie! goes the chance, maybe, of beating the time set for completion. So, instead of going along, taking the good with the bad, he looks ahead. And when he needs anything, instead of waiting around four or five hours until he can unload his troubles on the tool pusher, the driller now hops to the nearest telephone and calls us here at Wooster. And he doesn't hesitate to give us the devil if we keep him waiting."

"Peterson says he notices a difference," said the visitor, referring to B. L. Peterson manager of the Wooster Tool & Supply Co. the cooperatively-owned shop which does the work for most contractors and producers in the Wooster district. "He says he thought of putting in a shop in the Cambridge field (scene of an extensive gas development campaign at present) but they don't break enough equipment down there."

Gas engines for drilling have claimed much attention from the Kemrow company and they are at this time using 18 of them. Some contractors have condemned them after one or two trials and have never used them again, but the Kemrow, while having its share of troubles at the start, kept on and now assert that for their purpose they are as satisfactory as steam with the advantage of lower fuel cost and ability to use almost any kind of water.

Using Gas Engines For Drilling

"At that, the gas drilling engine is in its infancy," said Mr. Klise. The manufacturers have several problems to overcome. They are working away on them all the time and I expect to see an engine yet that will be practically perfect. It can't all be done in a day and I believe they are improving them as fast as we can expect."

One of the chief sources of trouble is the ignition, Mr. Klise says. Magnetos have given much trouble and frequently have to be replaced. He thinks much of the trouble is in oiling. They get either too much or too little and one such fault causes as much trouble at the other. Drillers usually do not understand them enough to keep them up to right performance and the magneto service people as a result have lots of work.

Another source of trouble that the Kemrow has experienced in some cases is with the clutch. Although this operates in oil, there seems to be difficulty with most types of keeping enough oil in with the result that bushings are cut, the cuttings mix with the oil and get into the gears. Roller bearings, thinks Mr. Klise, would be a help in overcoming this source of trouble.

Early in the experience of the company with gas engine drilling, some broken clutch shafts resulted, but this is entirely avoided now by instructing all drillers to loosen the flange coupling from time to time to see whether the outboard bearing is in alignment

Living Up To Make It Better

Demand for its better products keeps the 15,000-barrel Skelly refinery constantly busy so that higher quality goods can be produced at only a minimum premium to the trade.

The result is that Skelly is a good concern for a jobber to deal with —a fair company, willing to look at each transaction from the viewpoint of the jobber—a safe company, dependable in the quality and amount of its shipments—a company, in short, successful in catering to the demands of the highest class of jobbing trade.

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Type L-1 20x45x12 ft.

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GAS OILS
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Fuel Oil--Lubricating Oils

CYLINDER ENGINE CORDAGE

RED AND PALE PARAFFINE OILS

July Gasoline Exports Gain 45% Over July, 1925

WASHINGTON, Sept. 13.—Increased exports of all petroleum products of 36,292,306 gallons, or 9.6 per cent, to 413,377,424 gallons in July, 1926, over July, 1925, is shown by the Department of Commerce. Exports during the seven months ended July this year also increased over the corresponding period of 1925, to a total of 2,983,673,353 gallons, a gain of 388,146,779 gallons, or nearly 15 per cent.

Exports of crude in July this year were 1,725,969 barrels, which is an increase of 455,690 barrels, or 35.6 per cent over July, 1925. Value, however, declined from $1.87 in July last year, to $1.79 in July this year. Crude exports for the seven months ended July, 1926 were near the 9,000,000 barrel mark, showing a gain of 1,103,784 barrels, or about 14 per cent over the seven months ended July, 1925. Value increased from an average of $1.80 per barrel in the seven months ended July, 1925, to $1.87 per barrel in the corresponding period this year.

Exports of refined products increased 17,153,322 gallons in July, 1926 over July, 1925, or 5.2 per cent. Value remained about the same, at 11 cents per gallon average, including all products and all manner of shipments. Refined products shipments abroad during the seven months ended July, 1926 totaled 2,593,157,431 gallons, an increase of 329,271,908 gallons, or 14.5 per cent over the seven months ended July, 1925.

Gasoline exports in July this year increased 47,199,642 gallons, or 45 per cent over July 1925, totaling 152,114,055 gallons in July this year. Shipments for the seven months ended July, 1926 amounted to 1,068,364,442 gallons, which is a gain of 337,262,401 gallons over a corresponding period of 1925, or 42 per cent.

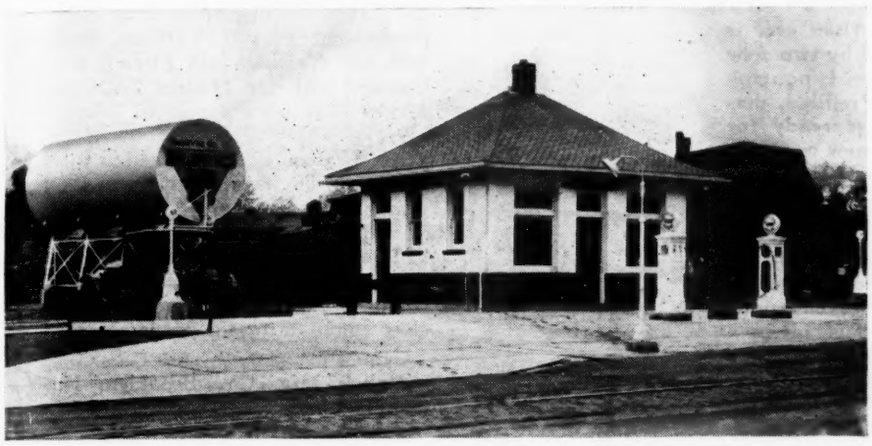
Kerosene, gas, fuel and lubricating oil exports showed decreases under July, 1925. Kerosene shipments fell off 4,500,000 gallons, to 67,515,511 gallons in July this year; gas and fuel oil decreased 24,481,670 gallons, or 89,324,473 gallons in July, 1926; and exports of lubricants decreased about 2,000,000 gallons, to 30,763,851 gallons. Paraffin wax exports increased over 4,000,000 pounds, to 30,767,962 pounds in July this year.

Jobber Opens Motor Oil Plant

LOS ANGELES, CALIF.—The Sunset Petroleum Corp. recently moved into its new motor oil distributing plant in Los Angeles, where it will do a general jobbing business on motor oils and automobile sundries. This division is in addition to its already established tank car business. Officers are: E. J. Hancock, president; M. B. Sheafor, vice president; and Fred P. Spraul, secretary.

New Oil Station Construction

National Petroleum News



An attractive service station recently completed at Athens, Pa., by the H. B. Van Dyne Oil Co., distributor of Pure Pennsylvania Eldred gasoline and oil. made by the Pennsylvania Oil Products Refining Co. The station has a red brick foundation, white walls, white pumps, air towers, spot lights and rest room. An above ground storage tank has been installed at the side of the station.

Louisville, Ky.—Two drive-in service stations are being erected here by Stoll Oil Refining Co., and another one will be started soon. A site in Cincinnati, O. was recently purchased for service station by the company.

* * *

Wichita, Kan.—O. S. Shirk to build filling station, garage, auto shop and store rooms at 2nd and St. Francis Sts.

* * *

Anthony, Kan.—Williams Oil Co. purchased site in Attica, Kan. and will build service station.

* * *

Liberal, Kan.—Balso Oil Co., Toledo, O., plans to build several service stations in this vicinity.

* * *

Iowa City, Ia.—Service station costing $5,500 will be built here by Standard Oil Co. of Indiana.

* * *

Dassel, Minn.—Filling station and garage will be erected here by Kopplin Motor Co.

* * *

Columbus, Neb.—Ed Cain, of Platte Valley Oil Co., is completing filling station.

* * *

Zanesville, O.—Standard Oil Co. of Ohio purchased property for service station.

* * *

Murray, Ia.—Bulk station being completed here by Spencer & Perry, of Afton, Ia.

* * *

McGehee, Ark.—Sam Wolchansky erecting filling station and garage.

* * *

Gallatin, Mo.—Roy Tolbert to erect filling station.

Claremore, Okla.—Sam Foster, M. R. Harrison, and others will build filling station. Mr. Foster is manager here for the Barnsdall Refining Co.

* * *

Zanesville, O.—Market Tire & Supply Store, of which Roy V. Sebaugh is owner, will build filling station.

* * *

Kansas City, Mo.—Marland Refining Co., Ponca City, Okla. purchased site here for filling station.

* * *

Leesburg, O.—Albert Lytle completing service station and will handle Sinclair products.

* * *

Hartford, Conn.—Thomas Stafford will erect filling station at 167 New Britain Ave.

* * *

Shakopee, Minn.—Kopsica Oil Co. leases property for filling station.

* * *

Yorkshire, N. Y.—Bulk station is being erected by B. M. Peckham.

* * *

Hallock, Minn.—Standard Oil Co. of Indiana to erect filling station.

* * *

Warren, Minn.—Pyramid Oil Co. completing filling station.

* * *

Enid, Okla.—Champlin Refining Co. to build service station.

* * *

Sioux City, Ia.—I. Miller & Co. seeks permit for filling station.

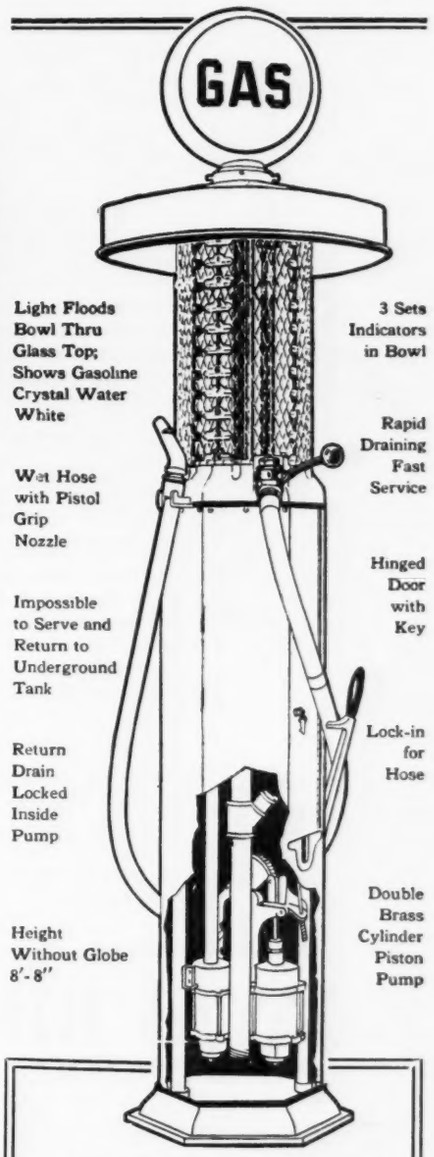
* * *

Springfield, Minn.—Edward Boelter to build filling station.

* * *

Fort Dodge, Ia.—Sam Katzman to build filling station.

The Finest Eye-Measure Hand-Operated Visibles
WET or DRY HOSE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Light Floods Bowl Thru Glass Top; Shows Gasoline Crystal Water White
3 Sets Indicators in Bowl
Rapid Draining Fast Service
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Return Drain Locked Inside Pump
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THE NEW *FAST POURING* RHODES OIL DISPENSERS

INSTANTLY READY!

The Rhodes Speed-Up Bottle

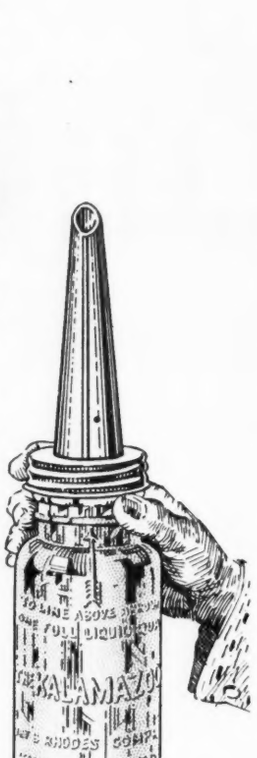
Faster oil service than ever is now made possible by two new model Rhodes rapid pouring Oil Dispensers. Prefilled, displayed, and always ready for instant use, these new containers make many additional oil sales.

A larger spout, which empties with great speed, has been fitted to the new Rhodes Speed-Up Bottle. This improved spout discharges a quart of oil in a few seconds, permitting more customers to be served, and increasing gallonage in the rush periods.

This bottle has a hand-fitting shape, and a low gravity center that virtually eliminates tipping and breakage.

The Kalamazoo Dispenser, manufactured under Rhodes patents, has a special tapered metal spout that makes it the fastest pouring Dispenser made. It will empty a quart of heavy motor oil in 8 seconds. It has a vent near the base of the spout, to control the flow.

Lower in price than the Rhodes Speed-Up Bottle, the Kalamazoo Dispenser is an unusual value because it has many of the features of much higher priced Dispensers.



The new Kalamazoo Bottle

See this profitable Rhodes Line at the Atlantic City Convention.

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If you want to be convinced of the superiority of Allison Coupon Books, let us put you in touch with those who use them year after year. Absolute accuracy guaranteed.

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Industrial Notes

Ross Heater & Mfg. Co., Inc., Buffalo, N. Y., has announced that Harold M. Graham, formerly with the Westinghouse Electric & Mfg. Co. and the Elliott Co., has joined the organization as chief engineer, and Ross H. Rathbun, formerly with the Westinghouse Electric & Mfg. Co. and with the Madera Co., Ltd., of Mexico, has been appointed sales manager.

Mr. Graham is experienced in thermodynamical engineering and was for two years in the condenser department of the Westinghouse company. Mr. Rathbun had been in charge of the central station department at Cleveland, O. of the same company previous to his connection as chief engineer for the Madera company.

* * *

Hauck Mfg. Co., Brooklyn, N. Y., manufacturing of oil burning appliances, has placed on the market a new torch known as the Hauck Venturi Suction torch which has been approved by the Underwriters Laboratory of Chicago and the Factory Mutual Fire Insurance Co.'s Laboratory. The feature of the new torch is that the fuel oil is under suction which tends toward greater safety as no pressure is maintained on the oil supply tank.

Industrial Catalogues

Crouse-Hinds Co., Syracuse, N. Y.— Condulets of many types for a variety of purposes are described in folders recently published by this company. Waterproof and vaporproof condulets, specially adapted for use in oil houses, garages and refineries as well as for other industrial plants, can be used with covers to provide gas, vapor and dustproof housings for double push button switches.

Its 24-inch Imperial floodlight projector for floodlighting large buildings and other large areas, is described and illustrated in one of the folders.

* * *

Jenkins Bros., 80 White St., New York.—Bulletin 107 has been published describing the Jenkins automatic equalizing stop and check valve, which is a single-acting non-return stop valve used in boiler rooms when the power plant consists of two or more boilers. The valve helps boiler efficiency by equalizing pressures, and insures boiler safety by preventing accidental turning of steam into a cold boiler, the company states.

NEW YORK.—The Cities Service Oil Co. has just opened two new service stations at Toronto, Can., one of which sold 3296 gallons during the opening day, and the other 2101 gallons.

Here & There

National Petroleum News

Mrs. J. S. Penfold, wife of J. S. Penfold, proprietor of the Penfold Service Station, Fort Lupton, Colo., narrowly escaped death recently when a dray link became loose from the steering wheel of her car, sending the car into a ditch. She was injured and her daughter sustained a broken rib. They were returning to Fort Lupton from Table Rock, Neb.

* * *

J. D. Wrather, president and general manager of the Amarillo Producers & Refiners Corp., Amarillo, Tex., has just returned from Wainright, Alta., where he is building a refinery for the Kling-Del Refineries, Ltd. Mr. Wrather and his son built the refinery at Edmonton, Alta., for Alberta Refineries, Inc.

* * *

William P. Christie, who is experienced in lubrication problems and sales, has been transferred from the southwestern division of the Sinclair Refining Co. at Kansas City, Mo., to Omaha, Neb., to take charge of the lubrication department of the northwestern division.

* * *

Mr. Perry, of Spencer & Perry, oil jobbers of Afton, Ia., has just become leader of the Afton Band. Mr. Perry is a talented musician, according to G. R. Spencer, partner in the firm, and toots a 28-inch tuba.

* * *

Ledger Smith, assistant superintendent at Colorado, Tex., of The California Co., San Francisco, and Mrs. Smith, are vacationing in California, visiting friends and relatives.

* * *

Jack Nelson and Joe Houghton, mechanical engineers of Boston, Mass., are now with the Louisiana Oil Refining Corp., Shreveport, La., in the refinery engineering division.

* * *

Henry H. Hower, president of Enterprise Oil Co., Inc., Buffalo, N. Y., recently returned to Buffalo after an extended western tour with John T. Peek, salesman for the company at Denver, Colo.

* * *

Warren G. Black, president of the Warren G. Black Co., Los Angeles, is visiting eastern states, and reports sales of Black Charger gasoline good.

P. H. Hertzog, formerly with the Vacuum Oil Co., New York City, has joined the Amarillo Producers & Refiners Corp., Amarillo, Tex., as general sales manager. Mr. Hertzog has been in sales work for a number of years, according to J. D. Wrather, president and general manager of the former company.

* * *

H. H. Blackburn, agent at Leonard, Tex., for the Magnolia Petroleum Co., Dallas, and V. V. Philbrook, agent at McKinney, Tex., for the same company, have recently returned from a motor trip to the lake region of Minnesota. They were accompanied by Mrs. Blackburn and Mrs. Philbrook.

* * *

Joe Albert, who is tank wagon driver for the Pittsfield Oil Co., Inc., Pittsfield, Mass., distributor of Tydol gasoline, delivered during August 86,000 gallons of gasoline and nearly 3000 gallons of Veedol motor oil, according to Le Roy Delamater, treasurer.

* * *

B. R. Rowell, formerly New England sales manager for the Tide Water Oil Co., New York, is now special representative in New England for the Sinclair Refining Co., New York.

* * *

Mr. and Mrs. Jerry B. Newby, accompanied by Mr. Newby's parents, Mr. and Mrs. H. W. Newby of Oklahoma City, recently spent a few days at Philadelphia and Atlantic City.

* * *

D. K. Chamberlin, who has been in the sales department of the Pure Oil Co. at Tulsa, has been promoted to assistant to Harold Moon, Mid-Continent buyer.

* * *

W. H. Anders, sales manager of the Southern Carbon Co., Monroe, La., was on a business trip to Mt. Vernon, O., recently.

* * *

W. F. Vane, manager of the land and lease division of The California Co., San Francisco, has been in Texas on business recently.

* * *

John Bell, formerly with the Galena Signal Oil Co. of Texas, is now with the Sun Oil Co. at Bridgeport, Conn.

BETHESDA, O.—The Valley Home Service Station Co., of Brookside, O., recently purchased a service and bulk station here, which increases its total to five stations, according to C. E. Nalley, manager. The company is successor to The Brown Supply Co.

Products that Satisfy

Satisfied Customers are the life of your business— ***and there is nothing that satisfies like real quality, at the right price.***

Humble Products "repeat" because their quality is right. Each one of them—and there is one for each lubrication need—has been carefully designed and prepared, and thoroughly tested to see that it meets the most rigid requirements.

Our line is complete, and our refinery facilities are such that we can take care of your needs at all times — making prompt shipments, in any quantity you may desire—a carload or a shipload—by rail or water, to any point on the globe.

Wire or write for samples and prices.

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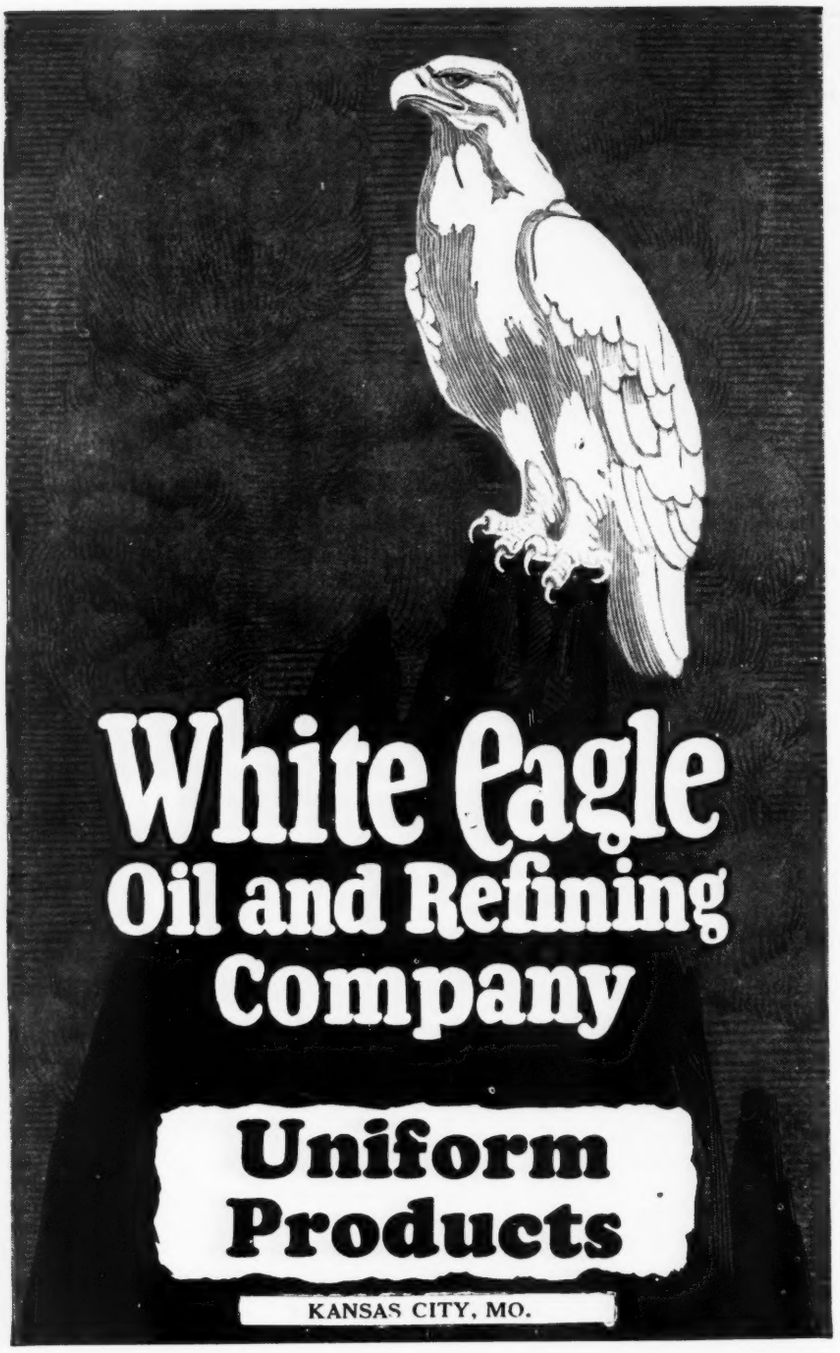
Reg. U. S. Pat. Off.

Humble Oil & Refining Co.

Houston, Texas
"Zero Cold Test Oils"
Producers—Pipe Lines
Refiners — Marketers



Oil Patents Issued Recently

Refining

Distillation of Oil.—Henry L. Doherty, New York, N. Y., assignor to Doherty Research Co., New York, N. Y. Filed Nov. 22, 1922. No. 1,597,674.

Heat Interchanger.—James P. Fisher, Bartlesville, Okla., assignor to Doherty Research Co., New York, N. Y. Filed Oct. 23, 1922. No. 1,597,678.

Surface Condenser.—George W. Saathoff, South Orange, N. J., assignor to Doherty Research Co., New York, N. Y. Filed Dec. 13, 1922. No. 1,597,695.

Process for Making Low-Boiling Hydrocarbons from Petroleum or other Oils.—Joseph Hidy James, Pittsburgh, Pa., assignor to Clarence P. Byrnes, trustee, Sewickley, Pa. Filed Nov. 13, 1919. No. 1,597,796.

Method of Oxidizing Heavy Hydrocarbons.—Joseph Hidy James, Pittsburgh, Pa., assignor to Clarence P. Byrnes, trustee, Sewickley, Pa. Filed Dec. 8, 1921. No. 1,597,797.

Method of Treating Liquid Hydrocarbons.—Joseph Hidy James, Pittsburgh, Pa., assignor to Clarence P. Byrnes, trustee, Sewickley, Pa. Filed July 21, 1922. No. 1,597,798.

Regulating Apparatus for Cracking Stills.—Daniel Pyzel, Piedmont, Calif., assignor to Simplex Refining Co., San Francisco, Calif. Filed June 25, 1924. No. 1,597,821.

Process of Cracking Hydrocarbons.—Eugene C. Herthel, Chicago, Ill., assignor to Sinclair Refining Co., Chicago, Ill. Filed July 12, 1922. No. 1,598,136.

Agent for the Purification of Liquids by Adsorption.—Paul W. Prutzman and Arnold D. Bennison, Los Angeles, Calif., assignors to General Petroleum Corp. of Calif., Los Angeles, Calif. Filed Aug. 17, 1925. No. 1,598,254.

Agent for the Purification of Liquids by Adsorption.—Paul W. Prutzman and Arnold D. Bennison, Los Angeles, Calif., assignors to General Petroleum Corp. of Calif., Los Angeles, Calif. Filed Aug. 17, 1925. No. 1,598,255.

Apparatus for Cracking Oil.—Gustav Egloff and Harry P. Benner, Chicago, Ill., assignors to Universal Oil Products Co., Chicago, Ill. Filed Mar. 23, 1921. No. 1,598,368.

Production

Breaking of Oil-Water Emulsions.—John Charles Walker, El Dorado, Kans., assignor to Doherty Research Co., New York, N. Y. Filed Dec. 5, 1921. No. 1,597,700.

Pipe Tongs.—John Grant, Los Angeles, and Stewart L. Campbell, Berkely, Calif., said Campbell assignor to said Grant. Filed July 11, 1923. No. 1,597,966.

Well-Pipe Head.—Henry P. Scanlon, Long Beach, Leonard L. Walker, Whittier, and John Rutherford, Long Beach, Calif. Filed Dec. 18, 1922. No. 1,598,017.

Circulator for Wells.—Edward F. Sherrick, Los Angeles, Calif., assignor of 33⅓ per cent to Frank C. Wiser and 33⅓ per cent to Thomas E. McLaughlin, both of Los Angeles, Calif. Filed Jan. 4, 1926. No. 1,598,320.

Miscellaneous

Solid Lubricating Compound.—Louis A. Walker, Franklin, Pa., assignor to The Franklin Railway Oil Co., Franklin, Pa. Filed Nov. 21, 1925. No. 1,598,225.

Gasoline-Price Indicator.—William H. Astley, Lincoln, Neb. Filed May 4, 1926. No. 1,598,416.

HOUSTON, Sept. 9.—The Merco Nordstrum Valve Co. announces that C. L. Hudson, formerly connected with its Houston office, is no longer with the company.

TULSA.—Harry F. Wright, formerly with the Nowata Oil & Gas Co., and also well known as a consultant, is now chief geologist for the Savoy Oil Co., with Tulsa headquarters.

BETHLEHEM
WAX PLANT EQUIPMENT

Filter Presses — *Wax Moulding Presses*
Wax Distillate Chilling Machines — *Scale Wax Cooling Drums*
Wax Testing Presses — *Paraffine Wax Sweater Plants*
Complete Wax Plants designed and built
Pumps, Stills, Towers, Condensers and other Oil Refinery Equipment
Oil Burning Systems — *Complete Power Plant Equipment*

BETHLEHEM SHIPBUILDING CORPORATION, LTD.
BETHLEHEM, PA.
GENERAL SALES OFFICES: 25 BROADWAY, NEW YORK CITY

Field Station Established at Tide Water Refinery

CLEVELAND, Sept. 10, 1926

A field station of the new course in fuel and gas engineering and the School of Chemical Engineering Practice has been established at the Bayonne refinery of the Tide Water Oil Company by the Massachusetts Institute of Technology.

For several years the chemical engineering department at Technology has been conducting through the School of Chemical Engineering Practice, an important part of its graduate training in chemical engineering at field stations located at Buffalo, N. Y., Bangor, Me., and Boston, Mass. There are six plants now cooperating with the institute in conducting field work in chemical engineering, i. e.—

The Eastern Manufacturing Co., Bangor, Me.

The Penobscot Chemical Fibre Co., Great Works, Me.

The Merrimac Chemical Co., South Wilmington, Mass.

The Revere Sugar Refinery, Charlestown, Mass.

The Bethlehem Steel Co., Lackawanna Plant, Buffalo, N. Y.

The Tide Water Oil Company, Bayonne, N. J.

Last October the Institute inaugurated a course in fuel and gas engineering, the purpose of which is to afford graduate engineers an opportunity for specialized training in processing and utilization of fuels. This course consists of nine months' theoretical training at the Institute followed by six months' field work at the Lackawanna Plant of the Bethlehem Steel Co., the Iroquois Gas Co., the Cambridge Gas Light Co., and the Bayonne Refinery of the Tide Water Oil Co.

The highly successful operation of the School of Chemical Engineering Practice has distinctly justified the method of teaching certain phases of chemical engineering at field stations rather than in the Institute's Laboratories. A member of the Institute Faculty is in residence at each station. The student receives no compensation from the cooperating company and therefore his work may be planned to have the maximum educational value. The field work consists, for the most part, of plant investigations of the normal production processes and tests of the regular plant equipment. This work is carried on in close cooperation with the technical staff of the plant and much of it is done on problems at the specific request of the executives of the cooperating companies.

The Institute is very fortunate in securing the cooperation of the Tide Water Oil Company since, in its Bayonne Plant, now largely modernized, opportunity exists for work on all of the manifold phases involved in the refining of petroleum. The Bayonne refinery is located, moreover, contiguous to extensive industrial districts in which opportunity for supplementary studies on fuels is possible.

Change your Customers' Oil *without* Pits or Racks!

Ask your jobber about *Brookins Oil Measures.* They are indispensable for crankcase service and will help you sell more oil. They are equipped with a flexible metal hose that easily reaches any oil intake. They quickly serve from one to five quarts of oil in one operation.

Another important feature: when oil is drawn into a *Brookins Measure* from a properly marked tank or drum, customers know they are getting accurate measurement *and the kind of oil they ask for.*

Brookins Portable Drain Tanks will bring you your share of the crankcase business that is now going to others. They take the place of drain pits and racks at a low cost that is quickly covered by increased sales. They make easy work of changing oil in any car, *anywhere.*

Order *Brookins Measures, Portable Drain Tanks* and *Gasoline Cans* now. Your jobber has them.

Brookins Gasoline Can

Carries Extra gas to stalled cars — won't spill. No funnel needed even for hard-to-get-at gas tanks—flexible metal hose reaches them all. Made of heavy terneplate in two and five gallon sizes.

The Brookins Mfg. Co.

342 Xenia Ave., Dayton, Ohio

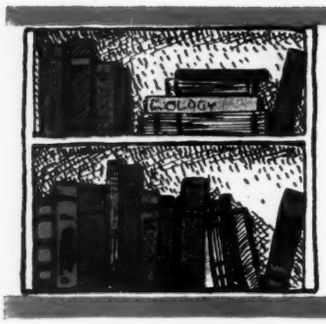
Brookins
SERVICE STATION EQUIPMENT

Brookins Portable Drain Tank

is 25 inches long, 11¼ inches wide, 4½ inches deep and holds about 4 gallons. Equipped with folding handle and steel runners. Can be drawn anywhere as easily as a sled, or can be carried with one hand even when full of liquid.

Brookins Oil Measure

Made in copper finish in one, two, four and five quart sizes. Has a flexible metal hose that reaches any oil intake without a funnel. A handy thumb-valve controls the flow of oil.



Oil Man's Bookshelf

IF you want to find out just where you stand on the ladder of success, take an inventory of the number of new practical ideas you have contributed to your work!

That's really the measure of our advancement in any position—employer and employee alike.

Systematic, constructive reading gives you new ideas and insures steady advancement in your work.

The OIL MAN'S BOOKSHELF will help you select books you can read with the greatest profit—whether you are in the refining, producing, natural gasoline or marketing divisions of the oil industry.

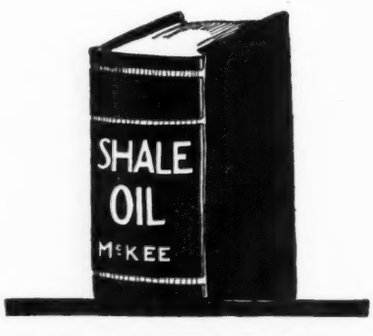
AMERICAN FUELS
by
Bacon and Hamor

"American Fuels" comes in two volumes, a total of 1245 pages and 382 illustrations.

The work aims to assist the manufacturer, engineer and chemist in deciding upon the most suitable fuel to use to get the highest efficiency in plant operation. It gives details of equipment and definite advice and information not obtainable in book form before.

Some of the main topics covered are: Availability, Chemistry, Properties, Production of fuels—Combustion engineering—Coking, Water gas, Producer gas—Fuel oil—Powdered coal—Analysis, testing—Economic use of fuels—Advantages of specific fuels—Relative costs of fuels—Fuel conservation.

Two volumes—1245 pages—$12.



If you are interested in the great problem of supplying the world with fuel—get a copy of SHALE OIL.

It is written by men who have devoted years to the investigation of oil shale resources and their uses. R. H. McKee, professor of chemical engineering, Columbia Univ., is chief editor, and other oil shale specialists have contributed chapters as follows:

Origin of Oil Shales—Geology and distribution—Kerogen, the oil yielding material—Fundamental factors in analyzing and evaluating—Refining of shale oils—Nitrogen constituents—Basic factors of industry—Distillation plants—Patents. 325 pages—profusely illustrated, $4.50.

Power Plant
LUBRICATION

"Power Plant Lubrication" is a new book just out. The author, Wm. F. Osborne, has for several years been working out methods of improving lubricating conditions in a great variety of machines.

In his book Mr. Osborne gives the solution to many lubricating problems. Anyone interested in the proper application of lubricants to machinery found in power plants will find this book very valuable.

Here is the table of contents:

General types of lubricants; Mineral lubricating oils; Physical and chemical properties of lubricating oils and grease; Fundamental principles of lubrication; Methods of applying oils to bearings; Continuous circulatory oiling systems; Testing bearing oils; Steam turbine and reduction gear lubrication; Lubricating steam cylinders; Testing steam cylinder oils; Steam engine, air compressor, refrigerating machine lubrication; Internal combustion engines; Buying lubricants; Standard methods of testing lubricants.

To solve your machinery lubricating problems, get a copy of "Power Plant Lubrication" just out.

275 pages — Illustrated — Price $3.

CUT AND MAIL

National Petroleum News,
866 Caxton Bldg., Cleveland, Ohio.

I want the books checked below. Enclosed is check or money order for $_____

☐ *American Fuels* by Bacon and Hamor.

☐ *Shale Oil* by R. H. McKee.

☐ *Power Plant Lubrication by W. F. Osborne.*

NAME .....

Address .....

.....

.....

ON THE LAZY BENCH

National Petroleum News

Oh! Was He?

"I was trying to rattle the traffic officer," said a young lawyer fresh from college, "and asked, 'Are you positive that the defendant was drunk?'"

"No doubt," growled the officer.

"Why are you so almighty certain about it?"

"Well, anyhow," replied the cop, "I saw him put a penny in the patrol box on Fourth Street and then he looked up at the clock on the Presbyterian church, and roared, 'I've lost 14 pounds weight'."

◈ ◈ ◈

Concrete Example

A contractor professed to be angry because some little fellow stepped on a new pavement before it was dry.

His wife rebuked him. "I thought you loved children," she said.

"I do in the abstract, but not in the concrete," he replied.

—Union Oil Bulletin

◈ ◈ ◈

Molly came home from her first visit to Sunday School carrying a small bag of chocolates.

"Why, Molly, where did you get the chocolates?" asked her mother. Molly looked up in surprise.

"I bought them with the nickel you gave me," she said. "The minister met me at the door and got me in for nothing."

—Union Oil Bulletin

◈ ◈ ◈

Girl—"Could you fix me a dose of castor oil so the oil won't taste?"

Druggist—"Certainly! Won't you have a glass of soda while waiting?"

Girl—"Oh, thank you." (And drinks the soda.)

Druggist—"Something else, Miss?"

Girl—"No, just the oil."

Druggist—"But you just drank it."

Girl—"Oh, dear! I wanted it for my mother."

—Pacific Gasoline Booster

◈ ◈ ◈

A Plea for Information

Oh, chemist, please investigate
And drop me just a line.
I'd like to know what carbonate?
And where did iodine?

—Milwaukee Tank News

◈ ◈ ◈

"My razor doesn't cut at all."

"Why, George, you don't mean to tell me that your beard is tougher than the oilcloth I cut this morning?"

—Union Oil Bulletin

He Said a Mouthful

An English visitor, home from touring in America, was asked about American roads. Said he: "There was a couple of chaps named Lincoln and Jefferson that each built a wonderful highway, but there was a Frenchman named Detour that built more roads than anybody, and his roads are rotten."

—Pure Oil News

◈ ◈ ◈

Rufus—"Hello, Rastus."

Rastus—"Hello, Rufus."

Rufus—"A heah yo'all been quarrel'n ovah t' you' house."

Rastus—"Yessuh, dat no 'count wife ob mine am all de time got de habit ob 'xaggeratin'."

Rufus—"How come now?"

Rastus—"She done gone and had twins."

—Bridgeport Driller

◈ ◈ ◈

Every Ford Needs 'Em

And now they're even growing automobile accessories. We just read in the paper that the farmers are expecting a bumper crop.

—Service Station News

◈ ◈ ◈

Two old maids were planning for the holidays.

"Anna," said the one, "would a long stocking hold all you'd want for Christmas?"

"No, Elvira," responded the other, "but a pair of socks would."

—Bridgeport Driller

◈ ◈ ◈

Suspicious Wife—"Where have you been all evening?"

Husband—"I've been talking business with Tom Baker."

"Yes! And I suppose that is baking powder sprinkled all over your shoulder?"

—Pacific Gasoline Booster

◈ ◈ ◈

A Rasp

"What's good for my wife's fallen arches?"

"Rubber heels."

"What shall I rub 'em with?"

—Pure Oil News

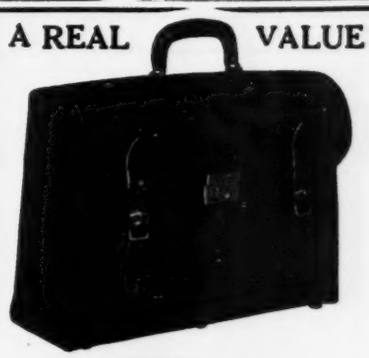
◈ ◈ ◈

Patron—"Here, this doughnut has a tack in it."

Waitress—"Well, I declare! I'll bet the ambitious little thing thinks it's a Ford tire.

—Union Oil Bulletin

A REAL VALUE



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$7.50

L-U-C-E 302K Folio is made of heavy, double weight muleskin, with reinforced bottom and strong lock, handle and straps. The edges are turned and lock stitched. One of the 3 roomy pockets contains an inner Case which holds 6 four oz. bottles and 5 grease jars. It is covered with washable Keratol and lined with velvet. Your name embossed in gold *free*. Satisfaction *guaranteed*.

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is a problem in CHEMISTRY

An "emulsion" represents a condition of a liquid which can be fully, scientifically and economically corrected by use of the chemical process. Use TRET-O-LITE process when you have cut oil and tank bottoms that require treating.

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Tret-O-lite

Reg. U. S. Pat. Off.

Fry
Visible Pump

Of the many fine features that go into the make-up of the Fry Visible Pump, one in connection with all the others you can always bank on—that's Fry

Dependability

Fry's ever increasing volume of sales tells the story

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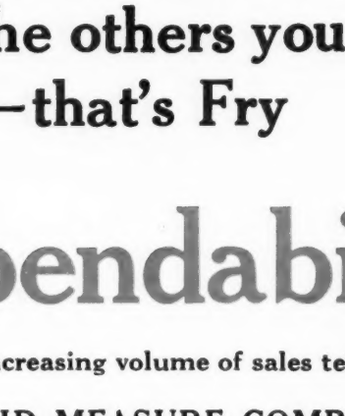


Jimmy—the Courtesy Man

Refinery - Tank Wagon Markets

National Petroleum News

Natural Gasoline Prices Maintained; Heavier Motor Fuels Cheaper

Staff Special
TULSA, Sept. 11

NATURAL gasoline demand has been sufficient to maintain prices this week although other gasolines have suffered from a lull in buying because rains in Mid-Continent consuming territory resulted in a piling up of motor fuel supplies in jobbers' tanks. U. S. Motor prices fell ¼ cent a gallon late this week and prices of other grades were ⅛ to ¼ cent lower.

Kerosenes are more easily obtainable at prices slightly lower than those in effect last week. Distillates and gas oil showed no price changes. Fuel oils were unchanged in prices but seemingly more easily obtainable from refiners.

Refinery operations statistics gathered by this publication indicate that jobbers bought heavily for two weeks before Labor Day holidays. Rains set in near the end of last week, however. Refinery salesmanagers who have talked this week with the jobber customers say consumption over the holidays was less than that expected. The lull in buying has been the natural reaction.

As early as Wednesday afternoon reports were heard that scattered cars of U. S. Motor could be found in Oklahoma at slightly less than 11 cents a gallon. On Thursday morning one of the larger Mid-Continent refiners reduced quotations on U. S. Motor from 11½ to 11 cents. Then came reports from Chicago that marketers there had been offered some U. S. Motor as low as 10¾ cents.

More Gasoline Available

ONE large refinery-marketing company's purchasing agent here who has been buying considerable gasoline all summer to supplement the company's own output, cancelled orders Friday for more than 50 cars, and said that he had between 50 and 100 cars of gasoline he would have to work out of his own plants. Another refinery salesmanager, who has been attempting to keep his tanks almost dry all summer, said today he could ship a trainload of gasoline.

Kansas refiners seem better situated. One salesmanager said that he had called in his salesmen early in the week of Aug. 30 and that because of the volume of business he was receiving he probably would be well oversold before the end of this week. Another Kansas refinery salesmanager had to buy gasoline on the outside to fill orders, he said, but added he expected a slackening after this week. He returned Thursday by rail from a trip through Iowa, having been forced to leave his auto in a northwestern Missouri city because of heavy rains.

Lower gravity gasolines reacted in sympathy with U. S. Motor. Most of the trade here believes 60-62, 400 end point gasoline and the other high gravities will remain fairly steady even though U. S. Motor prices recede further. The season for increased domestic consumption of high gravity goods is near and several refiners say jobbers are beginning to stock light gasolines.

The purchasing agent of a large Independent export company said that he had been carefully watching the light gasoline situation and that from all indications domestic demand had increased sufficiently to prevent light grades from piling up at refineries.

Premium Grades Active

LONG distance telephone conversations today with both refiners and marketers in north Texas, where a large part of high gravity gasolines are produced, disclosed that there has been a good deal of activity in those grades the last two days. One refiner who this summer made U. S. Motor, already has changed his runs to produce 60-62, 400 e.p., 64-66, 375 e.p. and 68-70, 350 e.p. gasolines.

While inquiries for natural gasolines have been spotty, demand has been sufficiently strong to keep prices steady. The salesmanager of one of the larger manufacturers said that in the last month business had increased sufficiently for his company to reduce their stocks by more than 200 car loads.

Other manufacturers, with only one or two exceptions, have declared their business has been good. One said Friday that so far this month he had not had to solicit orders more than two or three times because voluntary orders had been sufficient to move his output.

A revision of crude oil prices downward apparently is the only thing natural gasoline manufacturers fear. They feel that a crude price reduction would pull the gasoline price structure down although crude does not enter into the manufacture of their product.

Kerosene Slower

KEROSENE movement apparently has slackened slightly, probably due to the rains which have prevented farmers from plowing.

The Atlantic Refining Co.'s purchasing agent optioned 2,500,000 gallons of kerosene at 9¼ cents a gallon but allowed the option to expire at noon Wednesday. It was explained that export demand had not kept pace with rising prices in the interior.

Oklahoma refiners have been holding 41-43 w.w. kerosene at 9½ cents a gallon, but today scattered cars were obtainable from marketers at 9⅜ cents. Texas refiners have been receiving 9 to 9¼ cents a gallon and with the differential in their favor most of the recent kerosene buying has been in that area. Lower prices there have been due to output in excess of orders.

Kansas refiners have been getting 9¾ cents a gallon for 41-43 kerosene. Arkansas refiners have had to buy from Louisiana plants, thus improving the Louisiana markets.

Distillates and gas oil have shown little, if any change, for a few weeks. Shipments of distillates for the week ended Sept. 3, however, were considerably lower than at any time in August.

Fuel Oil

THE freer offering of fuel oils has been taken by persons in the trade as an indication that fuel prices are at the top for the present, and are due for a slump within a short time. Other persons doubt this is the situation, and believe there will be a strong fuel oil market through the season. The latter group points to the fact that fuel oil shipments are fairly steady most of the year, although a peak is reached in winter just when production usually is low. This combination these observers think will give considerable support to the market dispite the fact that refiners have run a good deal of fuel to storage. Other persons think most of this stored oil has been sold on contracts.

Representatives of a large Chicago fuel oil marketing company predict prices will slump a bit when refiners begin to unload

(Continued on page 101)

P.I.W.
STEEL PLATE CONSTRUCTION

STRENGTH

The hoops are spun into the shell without thinning or stretching the metal.

The chime ring is a special steel section carefully rolled down over each end.

where strength is needed

THE accumulated shocks and bumps of hard repeat shipments are directed toward the shell and the chime of the bilged steel container and it is at these points that extra strength is required.

In the G-E-M Bilged Steel Barrel the shell is reinforced with six hoop formations stiffening the metal to resist denting and crushing. The chime ring is a special section of steel securely rolled over each end giving a factor of safety exceeding the severest requirements.

The brawn of the G-E-M Bilged Steel Barrel is well known to many leading shippers. It more than meets I. C. C. Specifications No. 5.

Write to the nearest sales office for a price.

THE PETROLEUM IRON WORKS CO.

(PRESSED STEEL PRODUCTS DEP'T)

SHARON, PENNA.

Plants: Sharon, Pa., and Beaumont, Texas.

Branches: New York, St. Louis, Kansas City, Tulsa, Houston, Beaumont, San Francisco

Refinery Markets on Light Oils and Lubricants

Pennsylvania, Oklahoma, Kansas, North and South Texas, Louisiana, Arkansas, California and New England

GASOLINE AND NAPHTHA

PENNSYLVANIA	Prices Sept. 13	Prices Sept. 7	Prices Aug. 30
52-54 Naphtha	12¾ 13	12¾ 13	13 13¼
54-56 Naphtha	13 13¼	13 -13¼	13¼-13½
58-60 Gasoline	13¼ 13½	13¼-13½	13¼-13¾
60-62 Straight-run gasoline	14 14¼	14 -14¼	13¾-14½
64-66 Straight-run gasoline	14½ 15	14½-15	14½-15
68-70 Straight-run gas. 350-360 E.P	15 -15½	15 -15½	15¼-15½
68-70 Straight-run gas. 305-320 E.P	19 -20	19 -20	19 -20
OKLAHOMA			
48-50 450 E. P. naphtha	10½-10¾	-10¾	-10¾
50-52 450 E. P. naphtha	10¾	-10¾	-10¾
56-58 450 E. P. gasoline	10½ 10⅝	10¾-10⅞	10⅝-10¾
56-58 U. S. Motor gasoline	10¾	10⅞ 11	-10¾
58-60 450 E. P. gasoline	10⅝ 10¾	10¾-10⅞	10⅝-10¾
58-60 U. S. Motor 437 E. P.	10¾ 11	11 -11¼	10¾-11
60-62 400 E. P. gasoline	11⅜ 11½	11½ 11¾	11¼-11½
64-66 390 E. P. gasoline	11½ 11⅝	*11⅝ 11¾	*11½-11¾
64-66 375 E. P. gasoline	11¾ 12	11⅞ 12	*11¾-12
68-70 350-360 E. P. gasoline	12 -12⅛	12 -12⅛	12 -12¼
64-66 437 E. P. blend	-10½	10½-10¾	-10½
KANSAS*			
58-60 U. S. Motor gasoline	11¼-11½	-11½	11¼-11½
*F. O. B. refinery Kansas destination.			
NORTH TEXAS			
48-50 450 E. P. naphtha	-10¾	-10¾	-10¾
56-58 450 E. P. gasoline	10⅜ 10½	10⅜-10⅝	10⅜-10½
58-60 450 E. P. gasoline	10½ 10⅝	10⅝-10¾	10⅝-10⅝
56-58 U. S. Motor gasoline	-10⅜	-10¾	-10¾
58-60 U. S. Motor gasoline	-10¾	10¾ -11	-10¾
64-66 390 E. P. gasoline	* -11½	* -11½	* -11½
64-66 375 E. P. gasoline	11⅜-11¾	*11⅜-11¾	*11⅜-11½
68-70 350-360 E. P. gasoline	-12	12 -12⅛	12 -12¼
NORTH LOUISIANA			
58-60 U. S. Motor 437 E. P.	-11	11 -11¼	10¾-11
ARKANSAS			
56-58 450 E. P. gasoline	-10¾		
58-60 450 E. P. gasoline	10¾ -10⅞	11⅛-11¼	10½-10¾
58-60 U. S. Motor gasoline	11 -11¼	11¼-11½	10⅞ -11
CALIFORNIA			
*54-58 U. S. Motor 437, E.P.	12 -12½	12 -12½	12 -12½
*58-61 U. S. Motor, 437 E.P.	-13	-13	-13
42-45 Engine distillate, 445-480 E.P.	9¼-10	9¼-10	9¼-10

*This is without the 2-cent state tax included in the price of California refiners for shipments within the state.

NEW ENGLAND
(F. O. B. Boston and Fall River)

58-60 U. S. Motor gasoline	-13	-13	-12¾

NATURAL GASOLINE

(Note: End point of all grades, not over 375° F.)

OKLAHOMA			
Grade Double A	10¼ 10⅜	10¼-10½	-10
Grade A	10¾ 10⅜	10¼ 10½	-10
Grade Double B	10 10¼	10 -10⅛	- 9¾
Grade B	10 -10¼	10 -10⅛	- 9¾
Grade C	9¾ 10	-10	- 9¾

NOTE—Specifications adopted by Ass'n. of Nat. Gaso. Manufacturers
Grade Double A—80-87.9 gravity, 90% recovery, not over 375 E. P.
Grade A—72-79.9 gravity, 90% recovery, not over 375 E. P.
Grade Double B—84-92 gravity, 85% recovery, not over 375 E. P.
Grade B—76-83.9 gravity, 85% recovery, not over 375 E. P.
Grade C—80-90 gravity, 78% recovery, not over 375 E. P.

NORTH LOUISIANA			
*Grade Double A	-10¼	10¼-10¾	-10¼
*Grade Double B	10¾ 10½	-10½	-10½
*Grade C	10¼-10½	-10½	-10½
*F. O. B. Monroe District.			
NORTH TEXAS			
*Grade Double A	10¼-10⅜	10¼-10⅜	-10
*Grade A	10¼-10⅜	10¼ 10⅜	-10
*Grade Double B	10 -10¼	10 -10⅛	- 9¾
*Grade B	10 -10¼	10 -10⅛	- 9¾
*Grade C	-10	-10	- 9¾
*F. O. B. Breckenridge.			
CALIFORNIA			
75-85° 375-390 E. P.	15½-16	15½-16	15½-16
PENNSYLVANIA			
68-70 Grav. 437 E. P.	13½-14	13½-14	13½-14
64-66 Grav. 437 E. P.	13½-14	13½-14	13½-14
60-62 Grav. 437 E. P.	13½-14	13½-14	13½-14
68-70 Grav. 420 E. P.	13¾-14¼	13¾-14¼	13¾-14¼

BURNING OILS

PENNSYLVANIA			
45 Water White Kerosene	10½ 10¾	-10¾	10½-10¾
46 Water White Kerosene	11 -11¼	-11¼	10¾-11
47 Water White Kerosene	11½-12	-11¾	11¼-11¾
OKLAHOMA			
41-43 Water White Kerosene	9¼- 9½	- 9½	- 9½
42-44 Water White Kerosene	-10	* -10	* -10
KANSAS			
41-43 w. w. kerosene	- 9¾	- 9¾	- 9¾
42-44 w. w. kerosene	10¼ -10½	10¼-10½	10¼-10½

†Quotations only, no sales recorded.
*Prices nominal

NORTH TEXAS	Prices Sept. 13	Prices Sept. 7	Prices Aug. 30
41-43 Water White Kerosene	9 - 9¼	9¼- 9¼	9 - 9¼
NORTH LOUISIANA			
41-43 Water White Kerosene	9½-10	9½-10	*9½-10
ARKANSAS			
41-43 Water White Kerosene	9¼- 9¾	9¾- 9½	9¼- 9¾
CALIFORNIA			
38-40 Water White Kerosene	7½- 8	7½- 8	7½- 8
NEW ENGLAND			
**40-43 Water White Kerosene	-11	-11	-10¾

NEUTRAL OIL

PENNSYLVANIA			
(Viscosity at 70° F.)			
200 Vis. No. 3 Assoc. Filt	28½-29	28½-29	28½-29
180 Vis. No. 3 Assoc. Filt	26 -26½	26 -26½	26 -26½
150 Vis. No. 3 Assoc. Filt	23 -24	23 -24	23 -24
(Non-Viscous)			
34 Grav. 350-360 Flash	8 - 8½	8 - 8½	7¾- 8
36 Miners Neutrals 300-305 Flash	7½- 7¾	7½- 7¾	7½- 7¾
OKLAHOMA			
(Viscosity at 100° F.)			
100 Vis. No. 2 color	7- 7½	7 - 7½	7 - 7½
150 Vis. No. 3 color	9¼-10	9¼-10	9¼-10
150 Vis. No. 4 color	- 9¾	- 9¾	- 9¾
180 Vis. No. 3 color	10½-11½	10½-11½	10½-11½
180 Vis. No. 4 color	10 -10½	10 -10½	10 -10½
180 Vis. No. 5 color	10 -10½	10 -10½	10 -10½
200 Vis. No. 3 color	11 -12½	11 -12½	11 -12½
200 Vis. No. 4 color	-11½	-11½	-11½
200 Vis. No. 5 color	9¾-11½	9¾-11½	9¾-11½
220 Vis. No. 3 color	12 -13½	12 -13½	12 -13½
220 Vis. No. 4 color	-13	-13	-13
220 Vis. No. 5 color	12 -12¾	12 -12¾	12 -12¾
240 Vis. No. 3 color	14 -15	14 -15	14 -15
240 Vis. No. 4 color	-14½	-14½	-14½
240 Vis. No. 5 color	13 -14	13 -14	13 -14
280 Vis. No. 3 color	16 -17	16 -17	16 -17
280 Vis. No. 4 color	-16½	-16½	-16½
280 Vis. No. 5 color	15 -16	15 -16	15 -16
300 Vis. No. 5-6 color	-17	-17	-17
GULF COASTAL			
(Viscosity at 100° F; cold test 0)			
100 Vis. No. 2 Color Unfilt. Pale	8½ 9	8½- 9	8½- 9
200 Vis. No. 3 Color Unfilt. Pale	11½ 12	11½ 12	11½ -12
300 Vis. No. 3 Color Unfilt. Pale	12½ 13	12½-13	12½-13
500 Vis. No. 3½ Color Unfilt. Pale	14 -14½	14 -14½	14½-15
750 Vis. No. 4 Color Unfilt. Pale	17½ 18	17½ 18	17¾ 18
200 Vis. No. 5½ Color Red Oil	10 10½	10 -10½	10 -10½
300 Vis. No. 5½ Color Red Oil	11½ 12	11½-12	11½-12
500 Vis. No. 6 Color Red Oil	12½ 13	12½ 13	12½-13
750 Vis. No. 6 Color Red Oil	16½ 17	16½-17	16½-17
CALIFORNIA			
(Viscosity at 100° F.)			
100 Vis. No. 2 color	11 -11½	11 -11½	11 -11½
100 Vis. No. 3 color	8½- 9	8½- 9	8½- 9
200 Vis. No. 3 color	13½-14	13½-14	13½-14
300 Vis. No. 3 color	15 -15½	15 -15½	15 -15½
450 Vis. No. 3½ color	18 -18½	18 -18½	18 -18½
550 Vis. No. 3 color	20 -21	20 -21	20 -21
600 Vis. No. 3½ color	21 -22	21 -22	21 -22
100 Vis. No. 5 color	7 - 7½	7 - 7½	7 - 7½
200 Vis. No. 5 color	12 -12½	12 -12½	12 -12½
300 Vis. No. 5 color	13 -13½	13 -13½	13 -13½
400 Vis. No. 5 color	15 -16	15 -16	15 -16
500 Vis. No. 5 color	16 -17	16 -17	16 -17
600 Vis. No. 6 color	17 -18	17 -18	17 -18
700 Vis. No. 7 color	18 -19	18 -19	18 -19

CYLINDER STOCKS

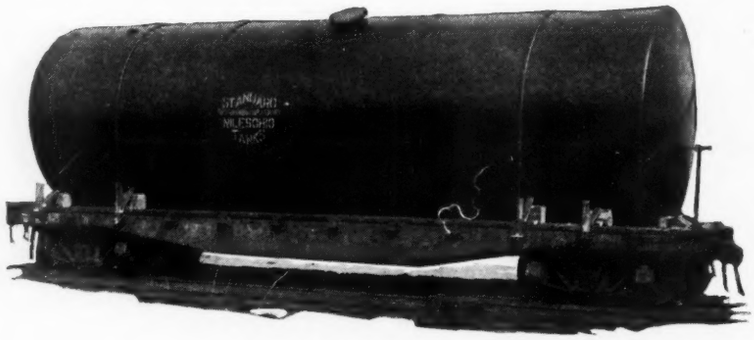
OKLAHOMA			
190-200 Vis. at 210° Bright Stock	31 -35	31 -35	31 -35
150-160 Vis. at 210° Bright Stock	28½-31	28½-31	28½-31
600 F. Stock, 140-150 Vis. — 210°	-18	-18	-18
600 Steam Refined Olive Green	8 -11	8 -11	8 -11
600 Steam Refined Dark Green	6 - 8	6 - 8	6 - 8
Black Oil	5 - 6	5 - 6	5 - 6
PENNSYLVANIA			
(1-inch Immersion Test)			
600 Steam Refined	12½-14	12½-13½	13 -13½
650 Steam Refined	16½-18	17½-18½	18 -18½
600 Flash	21½-22¾	21 -22	21 -22
625 Flash	32 -33	-32	32 -33
600 Warren E.	-21	-21	20½-21
600 Oil City E.	19 -20	-20	-19½
600 D Filtered	26 -26¾	-26¾	-26½
Cold Test Stocks (bright filtered)	41 -42	41 -42	41 -42
Cold Test Stock (dark filtered)	39 -40	39 -40	39 -40

(Note—Prices of total immersion test goods average 1 to 3 cents per gallon higher.)

Above prices are f. o. b. refinery in tank car. They are the prices at which the bulk of the products on the open market move. Whoever has knowledge of any open market prices on any considerable quantity of goods differing from the foregoing, will favor us with this information.

**Only one refiner quoting.
*Nominal.

STANDARD TANKS



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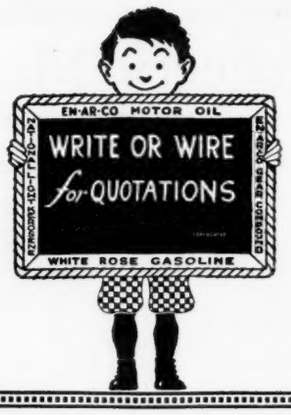

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Other equipment on which you may send prices .....

Name ..... Address .....

Refinery Markets on Wax and Heavy Oil Products

Pennsylvania, Oklahoma, Kansas, North and South Texas, Louisiana, Arkansas, California and New England

WAX

PENNSYLVANIA	Prices Sept. 13	Prices Sept. 7	Prices Aug. 30
	(Per Pound, New York)		
122-124 White Crude Scale..	- 5¼	- 5¼	5⅛- 5¼
124-126 White Crude Scale..	- 5⅜	- 5⅜	5¼- 5⅜
OKLAHOMA	(Per Pound, Group 3)		
124-126 White Crude Scale..	- 4¾	- 4¾	- 4¾
CALIFORNIA			
White Crude Scale.....	6 - 7	6 - 7	6 - 7

FUEL OIL

PENNSYLVANIA			
38-40 Fuel Oil.....	6½- 6¾	6½- 6¾	6⅜- 6⅝
30-34 Fuel Oil.....	5¾- 6	5¾- 6	5¾- 5⅞
28-30 Fuel Oil.....	5¾- 6	5¾- 6	5⅝- 5¾
OKLAHOMA			
38-40 Straw distillate.....	5½- 5¾	5½- 5¾	5½- 5¾
36-38 Straw distillate.....	5¼- 5½	5¼- 5½	5¼- 5½
32-36 Gas oil, cracked (Gal.)	4⅜- 4¼	4⅜- 4¼	4⅜- 4¼
32-36 Gas oil, uncracked (Gal.)	4¼- 4⅜	4¼- 4⅜	4¼- 4⅜
26-30 Fuel oil (Bbl.).....	1.60 -1.65	1.60 -1.65	1.60 -1.65
24-26 Fuel oil (Bbl.).....	1.45 -1.50	1.45 -1.50	1.42½-1.47½
22-26 Fuel oil (Bbl.).....	1.40 -1.45	1.40 -1.45	1.37½-1.42½
18-22 Fuel oil (Bbl.).....	1.35 -1.40	1.35 -1.40	1.35 -1.37½
14-18 Fuel oil (Bbl.).....	1.32½-1.35	1.32½-1.35	1.30 -1.35
KANSAS*			
38-40 Light straw distillate..	- 6	5⅞- 6	5¾- 6
36-38 Light straw distillate..	5⅝- 5¾	5⅝- 5¾	5½- 5¾
32-36 Gas Oil.....	4½- 4⅝	4½- 4⅝	4½- 4⅝
18-22 Fuel Oil.....	1.40 -1.45	1.40 -1.45	1.40 -1.45
24-26 Fuel Oil.....	1.55 -1.65	1.55 -1.65	1.55 -1.65
*F. O. B. refinery, Kansas destination.			
NORTH TEXAS			
38-40 Straw Distillate.....	5⅜- 5⅝	5⅜- 5⅝	5⅜- 5⅜
32-36 Gas Oil (Gal.) cracked	4½- 4⅝	4¼- 4⅜	4¼- 4⅜
32-36 uncracked gas oil.....	- 4⅜	4⅜- 4½	4⅜- 4½
24-26 Fuel per (Bbl.).....	1.47½-1.50	-1.50	1.45 -1.50

GULF COASTAL	Prices Sept. 13	Prices Sept. 7	Prices Aug. 30
Fuel.....	1.60 -1.65	1.60 -1.65	1.60 -1.65
Gas Oil.....	5⅜- 5¾	5⅜- 5¾	5⅜- 5¾
NORTH LOUISIANA			
32-36 Light Gas Oil (Gal.)..	4¾- 5	4¾- 5	4¾- 5
16-20 Fuel Oil (Bbl.).....	1.35 -1.40	1.35 -1.40	1.35 -1.40
ARKANSAS			
30-34 Gas oil.....	4¼- 4½	4¼- 4½	.....
32-36 Gas Oil.....	4⅜- 4⅞	4⅜- 4⅞	4⅜- 4⅞
Smackover Crude Fuel.....	1.25 -1.30	1.25 -1.30	1.25 -1.30
Road oil.....	1.30 -1.36½	1.30 -1.36½	1.30 -1.36½
CALIFORNIA*			
14-18 Fuel Oil (Bbl.).....	1.00	1.00	1.00
14-18 Bunker Oil (Bbl.)....	1.00	1.00	1.00
24-30 Gas Oil (Bbl.).....	1.15	1.15	1.15
27 + Diesel Oil (Bbl.).....	1.15	1.15	1.15
*(San Joaquin Valley, San Francisco 4c per bbl. more.)			
NEW ENGLAND	(F. O. B. Boston and Fall River)		
30-32 Gas Oil (Gal.).....	- 6⅛	- 6⅛	- 6⅛
Fuel Oil (Bunker C) Bbl...	-1.78	-1.79	-1.78

PETROLATUMS

PENNSYLVANIA			
Snow White.....	8¼- 9	8¼- 9	8¼- 9
Lily White.....	7½- 8	7½- 8	7½- 8
Cream White.....	- 6½	- 6½	- 6½
Light Amber.....	- 3½	- 3½	- 3½
Amber.....	3¼- 3½	3¼- 3½	3¼- 3½
Red.....	- 3	- 3	- 3
Green #5.....	1¾- 2	1¾- 2	1¾- 2

Above prices are f. o. b. refinery in tank car. They are the prices at which the bulk of the products on the open market move. Whoever has knowledge of any open market prices on any considerable quantity of goods differing from the foregoing, will favor us with this information.

(Continued from page 97)

some of the fuel they have in storage, but that prices, nevertheless, will be relatively high next winter. They are attempting, they said, to convince several of their large buyers who heretofore have demanded high gravity fuel, that the low gravity grades will serve their purposes as well. With gas oil in demand for cracking purposes, as well as the higher gravity fuels, they predict it will be difficult to get anything but the lower grades of fuel next winter at prices low enough to keep the consumer from changing to coal.

Several fuel oil handlers here have been carefully checking the Smackover crude oil situation this summer, and they believe Smackover will not be the fuel oil factor it formerly has been. If this proves to be true, they say, fuel oil prices are almost certain to remain high.

North Texas refiners have had a tight fuel oil market at $1.50 a barrel for 24-26. Industrial users and railroads buying their requirements monthly caused a tightening of the market at the beginning of each month. This month, however, one refiner in that area is said to have made an attractive offer to certain purchasers which prevented the usual tightening. This refiner feared the market would not hold through September, it was said.

Neutral oils and cylinder stock prices have not changed. Movement has been fairly good. Wax is still quiet. Several refiners are quoting up to 5 cents a pound for 124-126 semi-refined wax, but orders are few at any price.

New Safety Film Goes To Oklahoma Towns

Staff Special

TULSA, Sept. 11.—The Petroleum Safety Council of the Mid-Continent Oil & Gas Association has completed a new safety motion picture which will begin a tour of Oklahoma producing fields on Sept. 20. The title of the new picture is "The Unloaded Gun." With it will be shown a good comedy and some other first aid and educational pictures.

"The Unloaded Gun" was photographed in the field under the direction of Ray E. Miller, safety director for the council. It depicts actual working conditions in the field and the causes of common accidents.

Previous motion pictures have been shown by the council to thousands of workers in all parts of the Mid-Continent field. There will be no charge for admission to employees of producing, refining and natural gasoline companies or their employes.

Following is the itinerary of the picture up to Nov. 3:

Date	Town
Sept. 20th	Duncan
21st	Wirt
22nd	Wilson
23rd	Ardmore
24th	Seminole
25th	Wetumka
27th	Weleetka
28th	Cromwell
29th	Okmulgee
30th	Haskell
Oct. 1st	Jenks
2nd	Kiefer
4th	Sapulpa
5th	Bristow
6th	Slick
7th	Davenport
8th	Shamrock
9th	Drumright
11th	Cushing
12th	Yale
13th	Oilton
14th	Cleveland
15th	Hominy
16th	Wynona
18th	Barnsdall
19th	Avant
20th	Skiatook
21st	Nowata
22nd	Dewey
23rd	Bartlesville
25th	Shidler
26th	Webb City
27th	DeNoya
29th	Ponca City
29th	Garber
30th	Comar Camp (Tonkawa Field)
Nov. 1st	Tonkawa
2nd	Blackwell
3rd	Braman

Bad Weather Makes Chicago Resale Gasoline Market Quiet

CHICAGO, Sept. 11

INCLEMENT weather throughout the middle west most of the past week is blamed for inactivity in the Chicago gasoline market in the last five days. After the disappointing Labor Day consumption because of heavy rains, motoring in the remaining days this week has been hampered by cloudy and disagreeably cool weather.

The market for 58-60 U. S. Motor gasoline opened Tuesday with most marketers quoting 11¼ to 11½ cents. Demand for gasoline improved but little by Thursday and prices were reduced ¼ cent to 11 to 11¼ cents. Today 11¼ cents was maintained by a few, but most refiners and marketers in Chicago were offering Motor gasoline at 11 cents and trading at this price was reported to be quiet.

Domestic demand for high gravity gasolines continued to improve, 60-62, 400 end point gasoline is bringing 11½ to 11⅝ cents; 64-66, 390 e.p. gasoline, 11¾ cents, and 64-66, 375 e.p. gasoline, 12 to 12⅛ cents.

The fact that jobbers late this week were seeking gasoline in transit and in some instances were paying a premium for a carload that could be diverted to them, indicated to Chicago marketers that jobbers' stocks were low, and that a week-end of good motoring weather would bring increased demand.

The outlook for next week is encouraging. The Weather Man predicts mostly fair weather will prevail in the Great Lakes and west of the lakes region. Temperatures, however, will average slightly below normal. Considerably cooler weather will overspread most of the middle west at the beginning of the week; temperatures will rise during the middle days and fall again at the end of the week.

Kerosene varied little from the position it held a week ago. New business has been quiet but there has been some trouble getting old orders shipped. The 41-43 water white kerosene was held at 9½ to 9¾ cents early this week but the price range fell to 9¼ to 9½ cents on Friday. One refiner today reported he had 42-44 water white kerosene to offer for the first time in 60 days; his price was 10 cents.

Burning oil prices have remained generally unchanged. Spot demand is steady. The 38-40 straw color distillate is 5¾ to 6 cents and the ordinary grade of 32-36 gas oil is 4⅜ to 4½ cents with a few sales up to 4¾ cents for straw color goods.

Fuel oil buying has assumed hand-to-mouth proportions. The 18-22 gravity fuel oil is selling at $1.37½ to $1.40, and 24-26 gravity at $1.50 and in a few instances at $1.47½. Smackover crude fuel is largely held at $1.30 to the trade and less of it can be bought in the field cheaper than $1.25.

Time Spent Testing Air Worth $10 Per Hour?

CHICAGO, Sept. 11.—A. J. Whistler, president Akron Tire & Vulcanizing Co., Chicago, says motorists may earn $10 an hour by keeping their air pressure in tires up to normal and uniform. Here is how he says it is done:

"It takes about three minutes for a motorist to test the air in five tires and bring it up to normal," he says. "Over a year this amounts to two and a half hours if the air is checked once each week.

"From 20 to 30 per cent of tire mileage is lost due to neglect of pressure. On the other hand, proper attention to pressures is known often to increase the normal mileage of a tire a like proportion. Figured at 20 per cent gain, the time spent yields $10 an hour."

PLATT'S
OILGRAM
Petroleum Markets-Every Day

HOW SURE ARE YOU?

If you were to place an order *to-day* for gasoline, or kerosene, or fuel oil, or lubricating oil—

How sure would you be that you were buying *at the right time* and *at the actual market?*

Did you hear of a tankwagon cut today in another territory, which might indicate a cut coming in yours? Or, did crude change today? Or, did some one put in a big buying order for export which will stiffen the gasoline market ¼ cent or so tomorrow?

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Weeks Price Changes Tank Wagon Markets

Gasoline Changes

Standard of Nebraska—S.s. price gasoline at Omaha has been shown in error as 23.75 cents in the past two issues of National Petroleum News, due to error in Standard's price lists. Correct s.s. price since May 17 is 23.25 cents.

Kerosene Changes

Magnolia Petroleum—T.w. and s.s. prices kerosene advanced 1 cent, Oklahoma, to 15 cents generally at tank wagon, **Sept. 10.**

Magnolia Crude Runs Lower In August

HOUSTON, Sept. 13.—Magnolia petroleum Co., pipe line department, announces from Dallas headquarters the following crude oil runs for August, which are shown in comparison with July:

	July	August
Hewitt-Graham	81,194.79	141,140.12
Healdton	243,709.43	203,700.41
Cushing	119,504.21	122,071.12
Yale	70,977.12	70,189.48
Cement	21,091.42	21,958.32
Duncan	51,615.91	52,483.17
Augusta	41,125.74	39,937.80
Walters-Beaver Creek	8,830.09	8,809.23
Burbank	52,190.72	48,790.54
Wewoka	506,975.01	406,783.54
Bristow	.....	.....
Total Okla.-Kans.	1,197,214.44	1,115,863.73
Thrall	1,163.52	1,777.86
Electra	106,783.91	111,788.44
Burkburnett	80,702.57	80,025.86
Henrietta	6,602.52	2,898.25
Corsicana Heavy	9,867.23	8,913.38
Corsicana Light	19,195.90	17,991.01
Comanche	24,437.38	24,925.85
Olden	21,212.29	19,500.52
Stephens	12,963.62	13,269.93
Coleman	75.03	181.56
Mirando	101,890.14	125,846.41
Mexia-Wortham	50,017.01	52,859.92
Luling	504,598.16	496,476.03
Archer	65,820.36	69,749.85
Lytton Springs	87,378.57	84,645.56
Iatan	.....	3,134.19
Panola	.....	128.52
Panhandle	299,569.65	298,203.63
Gulf Coast	56,771.33	54,529.14
Total Texas	1,449,049.19	1,466,845.91
Haynesville	5,221.74	5,474.34
Bull Bayou	37,548.84	38,178.75
Cotton Valley	21,583.25	20,196.10
Pine Island	15,380.68	16,667.00
Total Louisiana	79,734.51	80,516.19
El Dorado Light	74,185.12	70,515.90
East El Dorado	2,180.34	2,180.80
Smackover	115,175.25	103,859.35
Total Arkansas	191,540.71	176,556.05
GRAND TOTAL	2,917,538.85	2,839,781.88

OKLAHOMA-KANSAS

Report for August, 1926		Daily Av.
Runs	1,115,864.00	35,996.00
Shipments	1,373,981.00	44,322.00
STOCKS	3,904,202.00	.....

TEXAS

Wichita, Wilbarger, Archer		
Runs	288,317	9,310
Shipments	262,749	8,476
Petrolia		
Runs	2,898	93
Shipments	2,898	93
Eastland, Stephens		
Runs	95,622	3,085
Shipments	228,926	7,385
TOTAL STOCKS	1,956,182.00	

North Central Texas Field

Tank Wagon, Service Station Markets for Gasoline and Kerosene In United States Territories and Canada

These Prices in Effect Sept. 13, 1926

S.O. NEW JERSEY TERRITORY

	Gasoline			Oil
	T.W.	Tax	Total T.W.	S.S.	T.W.
Atlantic City, N. J.	19	0	19	*	17
Newark, N. J.	19	0	19	21	17
Annapolis, Md.	19	2	21	*	17
Baltimore, Md.	19	2	21	24	17
Cumberland, Md.	19	2	21	24	17
Washington, D. C.	19	2	21	24	17
Danville, Va.	19	4½	23.5	*	17
Norfolk, Va.	19	4½	23.5	26.5	17
Richmond, Va.	19	4½	23.5	26.5	17
Roanoke, Va.	19	4½	23.5	26.5	17
Petersburg, Va.	19	4½	23.5	*	17
Williamsburg, Va.	19	4½	23.5	*	17
Charleston, W. Va.	18	3½	21.5	24.5	17
Clarksburg, W. Va.	19	3½	22.5	25.5	17
Keyser, W. Va.	19	3½	22.5	*	17
Parkersburg, W. Va.	18	3½	21.5	24.5	17
Wheeling, W. Va.	18	3½	21.5	24.5	17
Charlotte, N. C.	19.5	4	23.5	26.5	17
Hickory, N. C.	19.5	4	23.5	*	17
High Point, N. C.	19.5	4	23.5	*	17
Mt. Airy, N. C.	19.5	4	23.5	*	17
Salisbury, N. C.	19.5	4	23.5	*	17
Charleston, S. C.	19.5	5	24.5	27.5	17
Columbia, S. C.	19.5	5	24.5	27.5	17

*Dealers set own prices. S. O. New Jersey does not operate station.

S. O. NEW YORK

*New York City	21	0	21	25	18
Albany, N. Y.	17	0	17	19	18
Buffalo, N. Y.	20	0	20	23	18
Rochester, N. Y.	21	0	21	25	16
Syracuse, N. Y.	21	0	21	23	18
Boston, Mass.	21	0	21	23	18
Augusta, Me.	21	3	24	27	18
Manchester, N. H.	21	2	23	27	18
Burlington, Vt.	21	2	23	25	18

*In steel barrels.

ATLANTIC REFINING

Pittsburgh, Pa.	20	0	20	*25	17
Philadelphia, Pa.	20	0	20	*25	17
Allentown, Pa.	20	0	20	*25	17
Erie, Pa.	18	0	18	*23	15
Scranton, Pa.	20	0	20	*25	17
Altoona, Pa.	20	0	20	*25	17
Dover, Del.	20	2	22	25	17
Wilmington, Del.	20	2	22	25	17
Providence, R. I.	21	1	22	24	18
Boston, Mass.	21	0	21	23	18
Springfield, Mass.	21	0	21	23	18
Worcester, Mass.	21	0	21	23	18
Hartford, Conn.	21	2	23	26	17
New Haven, Conn.	21	2	23	26	18

*Contains 2-cent tax collected by retail dealer and paid by him directly to state.

S. O. KENTUCKY

Lexington, Ky.	20	5	25	28	18
Louisville, Ky.	19	5	24	27	17
Covington, Ky.	19	5	24	27	18
Clarksdale, Miss.	19	4	23	26	16.5
Jackson, Miss.	19	4	23	26	16.5
Natchez, Miss.	18.5	4	22.5	25.5	16
Vicksburg, Miss.	18.5	4	22.5	25.5	16
Birmingham, Ala.	20	2	22	25	18.5
Mobile, Ala.	19	2	21	24	17
Montgomery, Ala*	21	2	23	26	19.5
Atlanta, Ga.	†21	3½	25	28	19
Augusta, Ga.	†21	3½	25	28	19
Macon, Ga.	†21	3½	25	28	19
Savannah, Ga.	†19	3½	23	25	17
Jacksonville, Fla.	19	4	23	26	17
Miami, Fla.	21	4	25	28	18.5
Tampa, Fla.	19	4	23	26	17
Pensacola, Fla.	19	4	23	26	17.5

*Local privilege tax of 1 cent on gasoline and ½ cent on kerosene at Montgomery included.

†Georgia has ½ cent per gal. inspection fee on gasoline which is deducted as well as the state gasoline road tax of 3½ cents, to get the actual net tank wagon market to dealer.

S. O. INDIANA

	Gasoline			Oil
	T.W.	Tax	Total T.W.	S.S.	T.W.
Chicago, Ill.	†19	0	†19	21	15.5
Decatur, Ill.	19.2	0	19.2	21.2	16
E. St. Louis, Ill.	18.1	0	18.1	20.35	15.1
Joliet, Ill.	19.4	0	19.4	21.4	16.2
Peoria, Ill.	19.2	0	19.2	21.2	16
Quincy, Ill.	19.2	0	19.2	21.2	15.8
Indianapolis, Ind.	19.2	3	22.2	24.2	16.2
Evansville, Ind.	19	3	22	24	16
South Bend, Ind.	19.4	3	22.4	24.4	16.4
Detroit, Mich.	19.8	2	21.8	23.8	16.7
Grand Rapids, Mich.	19.7	2	21.7	23.7	16.6
Saginaw, Mich.	19.9	2	21.9	23.9	16.8
Green Bay, Wis.	18.6	2	20.6	22.6	16.3
Madison, Wis.	19.3	2	21.3	23.3	16
Milwaukee, Wis.	19.1	2	21.1	23.1	15.8
La Crosse, Wis.	20.2	2	22.2	24.2	16.9
Minneapolis, Minn.	20.2	2	22.2	24.2	17.1
Duluth, Minn.	20.5	2	22.5	24.5	17.1
Mankato, Minn.	20.1	2	22.1	24.1	16.9
Des Moines, Iowa	19.5	2	21.5	23.5	16.4
Davenport, Iowa	19.5	2	21.5	23.5	16.4
Sioux City, Iowa	19	2	21	23	16
Mason City, Ia.	19.5	2	21.5	23.5	16.4
St. Louis, Mo.	*18.6	2	20.6	22.9	15.5
Kansas City, Mo.	††19.9	2	21.9	23.9	14.8
St. Joseph, Mo.	*19	2	21	23	15.4
Fargo, N. D.	21.9	2	23.9	25.9	19.1
Grand Forks, N. D.	22.2	2	24.2	26.2	19.4
Minot, N. D.	21.9	2	23.9	25.9	19.1
Pierre, S. D.	20.5	3	23.5	25.5	17.6
Huron, S. D.	20.5	3	23.5	25.5	17.6
Wichita, Kans.	**17.8	2	19.8	21.8	15 3
Bartlesville, Okla.	17.8	3	20.8	22.8	15.3

†Dumps of 100 or more gallons at 18c per gallon.

*Includes city tax of ½c.

††Includes city tax of 1c.

**Dumps of 50 gallons or more in Kansas, 1c discount per gallon.

S. O. NEBRASKA

Crawford, Neb.	20	2	22	*	16.75
Omaha, Neb.	19.25	2	21.25	23.25	16
McCook	20.75	2	22.75	24.75	17.5
Norfolk	19.75	2	21.75	23.75	16.5
North Platte	20.75	2	22.75	24.75	17.25
Scottsbluff	20.25	2	22.25	24.25	16.75

*Standard has no service station here.

CONTINENTAL OIL

Denver, Colo.	20	2	22	22	18
Pueblo, Colo.	20	2	22	24	18
Grand Junction, Colo.	24	2	26	28	22
Casper, Wyo.	20	2½	22.5	24.5	16.5
Cheyenne, Wyo.	21	2½	23.5	25.5	16
Butte, Mont.	22	2	24	24	20.5
Helena, Mont.	24	2	26	28	20.5
Salt Lake City, Utah.	22.5	3½	26	28	19
Boise, Ida.	24	3	27	29	21
Albuquerque, N. M.	25.5	3	28.5	28.5	20

S. O. CALIFORNIA

Phoenix, Ariz.	22	3	25	28	21.5
Los Angeles, Cal.	14.5	2	16.5	20.5	15.5
Fresno, Cal.	16.5	2	18.5	22.5	17.5
San Francisco, Cal.	16	2	18	22	15.5
Reno, Nev.	19.5	4	23.5	27.5	19
Portland, Ore.	16	3	19	23	16.5
Seattle, Wash.	16	2	18	22	16.5
Spokane, Wash.	20	2	22	26	20.5
Tacoma, Wash.	16	2	18	22	16.5

S. O. LOUISIANA

Little Rock, Ark.	18	4	22	25	16
Alexandria, La.	18	2	20	23	17
Baton Rouge, La.	17	2	19	22	15.5
Lake Charles, La.	18.5	2	20.5	23.5	17
New Orleans, La.	*18.5	2	20.5	23.5	16
Shreveport, La.	17	2	19	22	16
Lafayette, La.	18	2	20	23	16.5
Bristol, Tenn.	21	3	24	27	17.5
Chattanooga, Tenn.	20.5	3	23.5	26.5	17.5
Knoxville, Tenn.	20.5	3	23.5	26.5	18
Nashville, Tenn.	18	3	21	24	18
Memphis, Tenn.	17	3	20	23	17

*Includes 1c city tax on gasoline and kerosene.

S. O. OHIO

	Gasoline			Oil
	T.W.	Tax	Total T.W.	S.S.	T.W.
All Ohio points	20	2	22	24	17

MAGNOLIA PETROLEUM

Muskogee, Okla.	17	3	20	23	15
Oklahoma City	15	3	18	21	15
Tulsa, Okla.	17	3	20	23	15
Fort Smith, Ark.	18	4	22	25	15.5
Little Rock, Ark.	18	4	22	25	15.5
Texarkana, Ark.	20	4	*24	*24	15
Dallas, Tex.	16	1	**17	17	14
El Paso, Tex.	20	1	**21	21	15
Fort Worth, Tex.	16	1	**17	17	14
Houston, Tex.	20	1	**21	21	14
San Antonio, Tex.	18	1	**19	19	14

*Within city of Texarkana, Ark., the state tax on gasoline is 1c per gal. conforming with the Texas state tax. In Texarkana district outside of the city the 4c state tax applies.

**Magnolia is maintaining only one price schedule in Texas—its retail schedule. This is in keeping with its contract, effective May 5, which allows the dealer 3c off the retail price.

V. M. & P. NAPHTHA

(Changes ordinarily occur coincident with gasoline price changed)

	Oleum Spirits	V.M.&P. Naphtha	Cleaners Naphtha
Chicago	21	23	21
Detroit	22.2	24.7	22.7
Kansas City	21.2	23.2	21.2
Milwaukee	21.2	*25.7	*23.7
Minneapolis	*24.5	*27	*25
St. Louis	20.4	22.9	22.2
New York	...	22	...

*Includes 2c state tax.

CANADA

(Per Imperial Gallon, which is 1.2 American Gallons)

ONTARIO

	Gasoline			Oil
	T.W.	Tax	Total T.W.	S.S.	T.W.
Toronto	26.5	3	29.5	33	24
Ottawa	26.5	3	29.5	33	24
Cochrane	31.5	3	34.5	40	29
Ft. William	28.5	3	31.5	36	26.5

MANITOBA

Winnipeg	29.5	3	32.5	36	26.5

SASKATCHEWAN

Regina	32.5	0	32.5	37	29.5

ALBERTA

Edmonton	31.5	2	33.5	37	28.5
Calgary	29.5	2	31.5	35	26.5

BRITISH COLUMBIA

Vancouver	25	3	28	30	25

QUEBEC

Montreal	26.5	3	29.5	33	24
Quebec City	28.5	3	31.5	35	26
Three Rivers	28.5	3	31.5	35	26

NEW BRUNSWICK

St. John	29.5	3	32.5	36	27
Moncton	29.5	3	32.5	36	27.5

NOVA SCOTIA

Halifax	29.5	3	32.5	36	27
Sydney	31.5	3	34.5	37	27.5

PRINCE EDWARD ISLAND

Charlottetown	29.5	3	32.5	36	27

Note: In districts surrounding these points 1c additional is added to city price.

Panuco Fuel Active and Scarce; Export Gasoline is Quiet

By Special Correspondent
NEW YORK, Sept. 13

EXPORT demand for gasoline lagged last week but there were numerous inquiries for bulk cargoes of kerosene for September-October shipment to England and France. These inquiries are expected to develop into orders. A market feature was the increased demand for Panuco crude oil. This oil is scarce and only one seller was found. A cargo of approximately 55,000 barrels was reported sold to a New York broker at $1.10 a barrel f. o. b. Tampico, taxes to be added. Kerosene and bunker oil demand is increasing.

Exporters report keener competition with Russian oils in France, England and Germany. Considerable quantities of gasoline, kerosene and lubricating oils are being shipped into these countries from Black Sea ports at approximately the same prices United States exporters are asking, but the Russian oils are receiving the preference because of quicker deliveries, it is said.

Export Gasoline—New York

Export demand for bulk gasoline has been light. South American and Far Eastern buyers are purchasing cased gasoline in larger quantities. U. S. Motor in cases is held at 28.90 cents a gallon. A large Independent refiner sold 25,000 cases of U. S. Motor and 64-66 375 end point gasoline for October shipment to the Orient but prices were not announced. It is believed this will be cleared from the Gulf.

U. S. Motor gasoline in bulk was held at 12½ cents at refineries. Considerable California gasoline is still coming in, keeping the market well supplied.

Export Gasoline—Gulf Ports

Gulf exporters reported few foreign inquiries and orders early in the week but on Thursday and Friday French and English buyers were inquiring for four mixed cargoes of gasoline and kerosene for shipment over the next 60 days. Price fluctuations were narrow. At the end of the week U. S. Motor was offered at 11¾ to 12 cents a gallon; 64-66, 375 endpoint at 13½ cents; 60-62, 400 endpoint at 12½ cents, and 61-63, 390 endpoint at 12¾ cents. It was rumored one of the leading refiners had sold a cargo of 45,000 barrels of U. S. Motor at 11¾ cents; 64-66 at 13½ cents, 44 plus water white at 10¼ cents, and prime white at 8¾ cents for October shipment to continental Europe.

Cased gasoline was quiet but firm. U. S. Motor was held at $2.20 a case in cargo lots while 64-66 375 endpoint was quoted at $2.40 a case, same basis. A Japanese buyer was inquiring for 30,000 cases of U. S. Motor and water white kerosene.

Domestic Gasoline—New York

Jobbing demand for gasoline has been less active. Consumption is still heavy but jobbers are not purchasing beyond immediate requirements. Leading refiners are still asking 12¼ to 12½ cents a gallon f. o. b. refineries and 13¼ to 13½ cents delivered. There has been a fairly steady influx of California gasoline which is held at 12¼ cents f. o. b. New York.

Domestic Gasoline—Gulf Ports

Demand for bulk gasoline was not up to expectations because many jobbers are holding off. U. S. Motor was offered more freely at 11¾ cents f. o. b. refineries.

Export Kerosene—New York

While some big exporters had been anticipating a heavier export demand, refiners are confident there will be a much improved foreign demand for kerosene before the end of September and are looking for substantially higher prices. Most of the big exporters were asking 10½ cents a gallon for prime white kerosene and 11 cents for water white in bulk at the refineries.

Cased kerosene was quiet but steady. Water white was offered at 21.15 cents a gallon while standard white was quoted at 19.65 cents a gallon. A large Chinese buyer is reported to have purchased 20,000 cases for October shipment.

Export Kerosene—Gulf Ports

Export demand for kerosene was less active. Refiners report European marketers keenly interested. A leading Independent refiner is working on a cargo of 45,000 barrels of U. S. Motor gasoline and prime and water white kerosene for October shipment to France. Although some Continental buyers have covered their fall requirements, many have not done so. It is expected the latter will enter the market soon. Water white was quoted at 10¼ to 10½ cents and prime white at 8¾ to 9 cents, in bulk cargoes.

Cased kerosene was steady. An Oriental buyer purchased 30,000 cases for October shipment. Cased water white was held at $2 and prime white at $1.90.

Domestic Kerosene

Domestic kerosene consumption is increasing rapidly. Prices are higher all along the Atlantic Seaboard and the Gulf. At New York harbor refineries water white is quoted at 11 to 11½ cents a gallon, and from 12 to 12½ cents a gallon delivered. Prime white was quoted at 10½ cents a gallon at refineries and 11½ cents delivered. At the Gulf water white kerosene is 10¼ cents at refineries.

Bunker Oil—New York

Domestic demand for bunker C oil has improved. No foreign buying of consequence was reported. Leading refiners are quoting spot oil at $1.75 a barrel f. o. b. New York harbor refineries and $1.81½ a barrel, f. a. s. New York harbor. Contract shipments are heavy and stocks are about large enough to take care of current requirements. Diesel oil is steady at $2.50 a barrel at refineries.

Bunker Oil—Gulf Ports

Bunker oil movement is large although mainly against contracts. Cargo offerings were less plentiful although the price was still quoted at $1.40 to $1.45 a barrel at New Orleans. For bunkering the price was $1.60 a barrel. At Tampico the price for bunkering was $1.55 a barrel including taxes. No cargo offerings were heard of. Panuco crude oil is scarce and it is reported that only one company is in a position to take new business. This concern sold to a New York broker a cargo of 55,000 barrels at $1.10 a barrel at Tampico, not including taxes.

Gas Oil—New York

Export inquiries for gas oil have been less numerous but with domestic consumption steadily gaining prices are well maintained. European marketers and consumers are finding it cheaper and quicker to buy Russian oil and are not showing much interest in the United States markets.

At New York harbor refineries 36-40 was 6¾ cents, while 28-34 was 6 cents.

Gas Oil—Gulf Ports

The tendency of prices was upward at the end of the week. It was reported that a large Independent refiner had sold a cargo of 40,000 barrels of 26-28 red transparent gas oil for October shipment to the United Kingdom at 5⅝ cents a gallon although other reports give the price as 5½ cents. For 32+ dark gas oil the asking price was 5⅜ to 5½ cents.

Waxes—New York

Demand for fully refined waxes was better but chiefly from domestic buyers. There have been a few export inquiries and orders because leading refiners are making large consignment shipments.

Prices underwent little change. White crude scale 122-124 A.m.p. was quoted at 5⅛ cents a pound. Fully refined 120-122 A.m.p. was held at 5¾ cents. For 135-137 A.m.p. the price was 6¾ cents.

Waxes—Gulf Ports

An unusually dull week prevailed in the wax market. White crude scale 124-126 A.m.p. was offered at 5.10 cents without attracting buyers. Other grades were quoted as follows: 124-126 semi-refined 5.20 cents; 123-125 at 5⅝ cents; 125-127 at 5¾ cents; 128-130 at 5⅞ cents; 130-132 at 6 cents; 133-135 at 6⅛ cents and 135-137 at 6⅜ cents a pound.

Lubricants—New York

Export business in the Pennsylvania lubricating oils was quiet last week. For 600 steam refined in barrels, New York, the prices ranged 20 to 21 cents a gallon. Neutral oil demands are in better export demand. Bright stocks are marking time.

Lubricants—Gulf Ports

With the colder weather approaching more interest is being shown in the zero cold test oils by both exporters and domestic buyers but buyers are content to cover only their nearby requirements. A rumor of a sale of 40,000 barrels of assorted lubricants for October shipment to England could not be verified.

Lion Plans Synthetic Resin Factory

TULSA, Sept. 13.—The Lion Oil & Refining Co. has begun construction of a by-product plant at its refinery at El Dorado, Ark., to produce asphalt-rubber compounds, asphalt and asphalt paints. The first unit will be ready for operation before Jan. 1. Two more units are to be built later, it is planned now.

Each unit will have a capacity of 500 barrels a day. When the plant is completed it will equal the capacity of the five other "mineral rubber" plants now in operation in the United States, it is said. Each unit will cost about $125,000.

The company's plans were announced after extensive research under the direction of Sylvester Dayson, general superintendent of the plant. Investigations led to the belief that Smackover crude would lend itself to the manufacture of synthetic resins and asphalt compounds better than any other oil.

The resin made of Smackover crude will be blended with crude rubber in various proportions in manufacturing phonograph records, telephone receivers, radio panels, combs, fountain pens and similar goods. Inquiries have been received from purchasers desiring to contract for the output of the plant, it was announced.

Road asphalt and a base for asphalt paint will be important products of the plant as well as a cut of lubricating oil.

Demand for synthetic resins has been enlarged greatly by advances in the price of crude rubber. Current prices for the product range from $40 to $75 a ton, based on quality.

Complete Export Markets

New York Export Market

GASOLINE	Sept. 13	Sept. 6
U. S. Motor Tank cars Ref.	12½	12½–12¾
U. S. Motor cases	28.90	–28.90
California grade U. S. Motor F. O. B. N. Y. Bulk	12½	12½–12¾
KEROSENE		
43-45-150 W.W.Tank cars Ref.	10½	–10½
43-45-150 W.W.Cases	21.15	–21.15
42-44-110 S.W.Cases	19.65	–19.65
GAS OIL		
36-40, Bulk Refinery	–06¾	–06¾
28-34, Bulk Refinery	–06	–06
MEXICAN BUNKER OIL		
Grade C, f. o. b. ref. Bulk	1.75	– 1.75
Diesel Oil f. o. b. ref. Bulk	2.50	– 2.50

LUBRICATING OILS

The following prices are cooperage basi f. o. b. New York, products being manufactured by inland refineries.

CYLINDER OILS (Bbls.) 1 inch Immersion Test; All Penna. Products		
Filtered D 600	29	–29
Filtered E 600	28	–28
Unfiltered 600 s. r.	19½	–19½
Unfiltered 650 s. r.	27	–27
600 flash s. r.	27½	–27½
630 Flash	38	.38
RED PARAFFIN (Bbls.) (Viscosity at 70)		
300 vis. No. 5 color	21	–21
250 vis. No. 5 color	20	–20
High Viscosity. No. 5 color	25	–25
NEUTRAL OILS (Bbls.) (Viscosity at 70)		
200 vis.at F.Pale. No. 3 color	–31	–31
180 Pale. No. 3 color	–29	–29
150 Pale. No. 3 color	–24½	–24½
BLACK OIL (Bbls.)		
25-30 cold test	13½	–13½
15 cold test	14½	–14½

MEDICINAL OILS
(Includes Price of Drums)
(Penna. Stocks)

	Sept. 13	Sept. 6
Domestic 875-885 s. g.	– .85	– .85
Domestic 865-.870 s. g.	.75– .80	.75– .80
Russian 885-.890 s. g. 325-330 vis.	1.10–1.25	1.10–1.25

WAXES

(Penna. Stocks)
(F. A. S. Carload Lots)

WHITE CRUDE SCALE		
122-124 A. m. p.	–05	.05
124-126 A. m. p.	5.12½	5.12½
MATCH		
105-108 A. m. p.	–06	–06
FULLY REFINED		
120-122 A. m. p.	–05¾	–05¾
123-125 A. m. p. Philadelphia	–05¾	–05¾
125-127 A. m. p.	–5.75	–5.75
128-130 A. m. p.	–06	–06
130-132 A. m. p.	–06¼	–06¼
133-135 A. m. p.	–06¾	–06½
135-137 A. m. p.	–06¾	–06¾
SEMI REFINED		
122-124 A. m. p.	.....	.....
YELLOW CRUDE SCALE		
124-126 A. m. p.	–05	–05

PETROLATUMS
(Penna. Stocks)
Per Pound

Dark Green	02¾–03	02¾–03
Veterinary	03¼	03¼
Light Amber	03¼	03¼
Dark Amber	03½	03½
Cream	06¼	06¼
Lily White	08¼	08¼
Snow White	10¾–11	10¾–11

Gulf Export Market

GASOLINE
F. O. B. Seaboard
(Shipments of 20,000 Bbls. and over)

	Sept. 13	Sept. 6
U. S. Motor, Bulk	11¾–12	–11⅞
60-62 400 e. p. Bulk	12½	–12½
61-63-390 e. p. Bulk	12¾	–.13
64-66 375 e. p. Bulk	13⅛–13½	–13⅜
U. S. Motor, Cases (cargo lots	2.20	2.20
64-66, Cases (cargo lots)	2.40	2.40
KEROSENE		
Water White, 43-45 bulk	10¼	–10¼
Prime White, 41-43 bulk	08¾–09	08¾–09
Water White, cases (cargo lots)	2.00	2.00
Prime White, cases (cargo lots)	1.90	1.85
DOMESTIC GAS AND BUNKER OIL		
26-28, gravity, bulk*	05¾	–05¾
32 plus, bulk, Dark	05½	–05½
Grade C. Bunker oil	1.60	–1.60
Cargoes	1.40	–1.40

*Transparent through neck of a 4 oz. bottle.

MEXICAN CRUDE AND BUNKER OILS F. O. B. Steamer Tampico		
Heavy, Taxes to be added	1.10	–1.12
Grade C, Bunker oil Taxes paid...cargoes	nominal	–1.40
Grade C, Bunker oil F. O. B. New Orleans	1.60	–1.60

SOUTH TEXAS
(Viscosity at 100° F; cold test 0)
(Tanker, F. O. B. Houston)

*LUBRICATING OILS	Sept. 13	Sept. 6
100 Vis. No.2 Unfiltered Pale	07¼	07¼
150 Vis. No.2½ Unfiltered Pale.	09¼	09¼
200 Vis. No.3 Unfiltered Pale	10¾	10¾
300 Vis. No.3 Unfiltered Pale	13	13
500 Vis. No.3½ Unfiltered Pale,	14¼	14¼
200 Vis. No.5½ Red Oil	10¼	10¼
300 Vis. No.5½ Red Oil	10¾	10¾
500 Vis. No.6 Red Oil	11	11
800 Vis. No.6 Red Oil	16	16

*These prices are entirely nominal owing to wide fluctuations.

Pacific Export Market

(Cargo lots quotations at seaboard, Los Angeles)

	Sept. 13	Sept. 6
Gasoline, U. S. Motor— 54°-56°	10 –10½	10 –10½
Gasoline, U. S. Motor— blends and special cuts	10½–11	10½–11
Gas Oil, 24°—30°B. per bbl.	$1.15	$1.15
Diesel Oil, 27°B—plus per bbl.	$1.15	$1.15
Bunker Oil, 14°—18°B. per bbl.	$1.00	$1.00
Fuel Oil, 14°—18°B. per bbl.	$1.00	$1.00
Kerosene, W. W. 38°—40° B per gal., 125-150 flash test	05¾–06¾	.05¾–.06¾
Cased Goods		
Gasoline, U. S. Motor	$2.25	$2.55
Kerosene, W. W. 38°—40° B per case, flash test 125-150	$1.50–1.55	$1.50–1.55

N. Y. Domestic Market

The following light oil, gas and fuel oil prices are F. O. B. New York refineries, being products made from Domestic (including California) and Mexican Crudes.

	Sept. 13	Sept. 6
U. S. Motor Gasoline, Tank Cars Delivered greater N.Y.	13¼–13½	113½
U. S. Motor Gasoline, Tank Cars Bayonne	12¼–12½	–12½
U. S. Motor, Tank Cars, *Atlantic Seaboard Terminals	12¼–12½	–12½
Kerosene, 44 150 W. W. Tank Cars de'd greater N.Y.	.12	–11½
Grade C Bunker f.o.b.N.Y.Ref.	1.75	1.75
Diesel Oil f.o.b. Refinery	2.50	2.50
Gas Oil, 36-40, Bulk Refinery	–06¾	–06¾
Gas Oil, 28-34 Bulk, Refinery	.06	–06

*New York, Philadelphia, Portsmouth, Va. Charleston, S. C.

Crude Oil Prices All Fields

PRICES IN EFFECT, *Sept. 13, 1926*

EASTERN FIELDS
Posted by Joseph Seep Purchasing Agency

Penna Grade Oil in New York Transit Lines (Alleghany, N Y. District)	$3.40
Bradford District Oil in National Transit Lines (Bradford District)	3.40
Penna. Grade Oil in National Transit Lines (Other Pennsylvania)	3.30
Penna. Grade Oil in Southwest Penna. Pipe Lines (Other Pennsylvania)	3.30
Penna. Grade Oil in Eureka Pipe Lines (West Virginia)	3.25
Penna. Grade Oil in Buckeye Pipe Lines (Macksburg, O. district)	3.05
Keister Grade in National Transit Lines (Butler Co.)	2.30
Gaines, Tioga Co. (Pa.)	2.85
Cabell Grade in Eureka Pipe Lines (West Virginia)	2.40
Corning Grade in Buckeye Pipe Lines (Ohio)	2.55
*Somerset Medium in Cumberland Pipe Lines (Kentucky)	2.50
*Somerset Light in Cumberland Pipe Lines (Kentucky)	2.65
Ragland Grade in Cumberland Pipe Lines (Kentucky)	1.25

*Somerset oil run prior to Oct. 1, 1923, takes price of 6 cents lower than above quotations.

Posted by Stoll Oil Refining Co.

Tinsley Bottom, Tenn. oil in Stoll Oil Refining Co. lines	$2.46
Oil City, Ky. oil in Stoll Oil Refining Co. lines	2.65

CENTRAL STATES FIELDS
Posted by Ohio Oil Co.

Wooster	$2.55	Illinois	$2.37
Lima	2.48	Plymouth	1.99
Waterloo	1.35	*Canadian Petrolia	2.88
Indiana	2.25	*Posted by Imperial Oil. Ltd.	
Princeton	2.37		

OKLAHOMA, KANSAS And NORTH TEXAS
Prices of Prairie Oil & Gas Co.
(In Oklahoma, Kansas, North and East Centra Texas) Effective May 15, 1926.

28-28.9	$1.65	41-41.9	$2.69
29-29.9	1.73	42-42.9	2.77
30-30.9	1.81	43-43.9	2.85
31-31.9	1.89	44-44.9	2.93
32-32.9	1.97	45-45.9	3.01
33-33.9	2.05	46-46.9	3.09
34-34.9	2.13	47-47.9	3.17
35-35.9	2.21	48-48.9	3.25
36-36.9	2.29	49-49.9	3.33
37-37.9	2.37	50-50.9	3.41
38-38.9	2.45	51-51.9	3.49
39-39.9	2.53	52 and above	3.57
40-40.9	2.61		

The Texas Co. posted same gravity and price as Prairie

Humble Oil & Refining Co. Prices
(Ranger, North Texas, Mexia, Powell, Richland, Wortham, Lytton Springs, Currie, Moran and Nocona crudes all in Texas.)

Humble's grades and prices same as Prairie schedule. In fields where Humble purchases crude below 28°, 8 cents less for each full degree.

Mirando, Tex	$1.25

Magnolia Petroleum Co. Prices
In Oklahoma, Kansas and North and East Central Texas

Same grades and prices as posted by Prairie, excepting that Magnolia is paying $1.30 for all oil below 28 gravity.

Corsicana heavy	$1.25

PANHANDLE, TEXAS
Prices of Kay County Gas Co. and Magnolia Petroleum Co.

28-28.9	$1.35	34-34.9	$1.65
29-29.9	1.40	35-35.9	1.70
30-30.9	1.45	36-36.9	1.75
31-31.9	1.50	37-37.9	1.80
32-32.9	1.55	38-38.9	1.85
33-33.9	1.60	39 and above	1.90

Humble Oil & Refining Co.

Same grades and prices as Kay County Gas Co. and Magnolia Petroleum Co., excepting these five grades of light oil posted on June 21:

39-39.9	$1.90	42-42.9	$2.05
40-40.9	1.95	43-43.9	2.10
41-41.9	2.00	44 and above	2.15

NORTH LOUISIANA—ARKANSAS FIELDS
***Prices of the Standard Oil Co. of Louisiana**

Caddo, below 26	$1.40
" 26-28.9	1.55
" 29-31.9	1.70
" 32-34.9	2.25
" 35-37.9	2.35
" 38 and above	2.45
Homer, below 31	1.85
" 31-32.9	2.00
" 33-34.9	2.10
" 35 and above	2.20
Haynesville, below 33	2.00
" 33 and above	2.10
El Dorado, including Lisbon, below 33	2.00
" 33-34.9	2.10
" 35-36.9	2.20
" 37 and above	2.30
Bull Bayou, 32-34.9	1.95
" 35-37.9	2.10
" 38 and above	2.25
Smackover, below 24	1.10
" 24-24.9	1.35
" 25-25.9	1.40
" 26-26.9	1.45
" 27 and above	1.50
De Soto	2.30
Crichton	2.10
Bellevue	1.50
Cotton Valley	1.20
**Urania, La	1.10
†Calion (East El Dorado)	.95

*Gulf, Louisiana Oil Refining and The Texas Co. same prices as Standard.

**Posted by Louisiana Oil Refining Corp.

†Posted by Gulf.

STEPHENS, ARKANSAS
Posted by Louisiana Oil Refining Corp., and Atlantic Oil Producing Co.

26 and above	$1.65	Below 26	$1.45

GULF COASTAL FIELDS
Posted by Humble Oil & Refining Co.

Grades A	$1.40	29-29.9	$1.65
Grades B:		30-30.9	1.70
Below 25	1.40	31-31.9	1.75
25-25.9	1.45	32-32.9	1.80
26-26.9	1.50	33-33.9	1.85
27-27.9	1.55	34-34.9	1.90
28-28.9	1.60	35 and above	1.95

Fields classified as A and B are Goose Creek, Hull, Liberty, West Columbia, Orange, Boling and Pierce Junction. All other fields are Grades A only.

Prices of The Texas Co.

Grades A	$1.60	*Grades B	$1.60
‡Grades B (light crude):			
35-35.9	$2.05	38-38.9	$2.20
36-36.9	2.10	39-39.9	2.25
37-37.9	2.15	40 and above	2.30

*Grades B include all heavy crudes which do not meet tests for Grades A or for Gulf Coast light crude.

‡The Texas Co.'s gravity and price schedule on oil below 35° is same as Humble's postings on Grades B.

SPINDLETOP
Humble Oil & Refining Co.

Grade A	$1.25	27-27.9	$1.40
Grades B:		28-28.9	1.45
Below 25	1.25	29-29.9	1.50
25-25.9	1.30	30-30.9	1.55
26-26.9	1.35	31-31.9	1.60

ROCKY MOUNTAIN FIELDS
Prices of Ohio Oil Co. and Midwest Refining Co.

‡Salt Creek 29-29.9	$1.73
" " 30-30.9	1.81
" " 31-31.9	1.89
" " 32-32.9	1.97
" " 33-33.9	2.05
" " 34-34.9	2.13
" " 35-35.9	2.21
" " 36-36.9	2.29
" " 37 and above	2.37
Elk Basin	2.40
Grass Creek light	2.40
Big Muddy	2.25
Lance Creek	2.40
Rock Creek	2.25
‡Osage	2.40
‡Cat Creek, Mont	2.40
Sunburst, Mont	1.15
‡Hogback, N. Mex	2.45
Artesia, N. Mex	2.20

‡Posted by Midwest Refining Co. Midwest also buys Grass Creek light, and Elk Basin.

The Texas Co. buys Salt Creek and Big Muddy crude.

CALIFORNIA
Standard Oil Co. of California

Santa Maria and Ventura Posted by *Union Oil Co.

Gravity	Signal Hill Huntington Beach	Ingle-wood Torrance	Whittier La Habra	Newhall, McKittrick, Kern River	Olinda-Brea Canon, Richfield	Athens-Rosecrans Dominguez	Monte-bello	Coyote Hills	Santa Fe Springs	Midway-Sunset Elk Hills	Lost Hills	Coalinga	Wheeler Ridge	Santa Maria	Ventura
14-14.9	$ .85	$ .85	$ .85	$ .75	$ .85	.....	$ .85	$ .85	.....	$ .75	$ .75	$ .75	$ .75	$ .85	$ .85
15-15.9	.87	.87	.85	.75	.87	.....	.85	.85	.....	.75	.75	.75	.75	.85	.85
16-16.9	.90	.90	.85	.75	.90	.....	.85	.85	.....	.75	.75	.75	.75	.85	.85
17-17.9	.94	.94	.85	.75	.94	.....	.85	.85	.....	.75	.75	.75	.75	.85	.85
18-18.9	.98	.98	.86	.75	.98	.....	.86	.86	.....	.75	.75	.75	.75	.85	.85
19-19.9	1.04	1.04	.87	.75	1.04	.....	.87	.87	.....	.75	.75	.75	.75	.85	.85
20-20.9	1.10	1.10	.89	.....	1.10	.....	.89	.90	.....	.82	.82	.79	.78	.90	.90
21-21.9	1.16	1.16	.91	.....	1.16	.....	.91	.98	.....	.90	.90	.86	.81	.97	.97
22-22.9	1.22	1.22	.94	.....	1.22	.....	.94	1.06	.....	1.00	1.00	.93	.85	1.04	1.04
23-23.9	1.28	1.28	.....	.....	1.28	.....	.97	1.14	.....	1.11	1.11	1.00	.89	1.11	1.11
24-24.9	1.34	1.34	.....	.....	1.34	$1.34	1.01	1.22	$1.02	1.22	1.22	1.07	.93	1.18	1.18
25-25.9	1.40	1.40	.....	.....	1.40	1.40	1.05	1.30	1.08	1.33	1.33	1.14	.97	1.25	1.25
26-26.9	1.46	1.46	.....	.....	1.46	1.46	1.09	1.38	1.16	1.44	1.44	1.21	1.01	1.32	1.32
27-27.9	1.52	1.52	.....	.....	1.52	1.52	1.13	1.46	1.24	1.55	1.55	1.28	1.05	1.39	1.39
28-28.9	1.58	1.58	.....	.....	1.58	1.58	1.17	1.54	1.32	1.66	1.66	1.35	.....	1.46	1.46
29-29.9	1.64	.....	.....	.....	1.64	1.64	1.21	1.62	1.40	1.77	1.77	1.42	.....	1.53	1.53
30-30.9	1.70	.....	.....	.....	1.70	1.70	1.25	1.70	1.48	1.88	1.88	1.49	.....	1.60	1.60
31-31.9	1.76	.....	.....	.....	.....	1.76	.....	.....	1.60	1.99	1.99	1.56	.....	.....	1.67
32-32.9	1.84	.....	.....	.....	.....	1.84	.....	.....	1.72	2.10	2.10	1.63	.....	.....	1.73
33-33.9	.....	.....	.....	.....	.....	1.92	.....	.....	1.84	2.21	2.21	1.70	.....	.....	1.79
34-34.9	.....	.....	.....	.....	.....	2.00	.....	.....	1.96	.....	2.32	1.77	.....	.....	1.85
35-35.9	.....	.....	.....	.....	.....	2.08	.....	.....	2.08	.....	.....	1.84	.....	.....	1.92
36-36.9	.....	.....	.....	.....	.....	2.16	.....	.....	2.16	.....	.....	.....	.....	.....	.....
37-37.9	.....	.....	.....	.....	.....	2.24	.....	.....	2.24	.....	.....	.....	.....	.....	.....
38-38.9	.....	.....	.....	.....	.....	2.34	.....	.....	2.34	.....	.....	.....	.....	.....	.....
39-39.9	.....	.....	.....	.....	.....	2.44	.....	.....	2.44	.....	.....	.....	.....	.....	.....
40-40.9	.....	.....	.....	.....	.....	2.54	.....	.....	.....	.....	.....	.....	.....	.....	.....
41-41.9	.....	.....	.....	.....	.....	2.64	.....	.....	.....	.....	.....	.....	.....	.....	.....
42-42.9	.....	.....	.....	.....	.....	2.74	.....	.....	.....	.....	.....	.....	.....	.....	.....

*Union Oil Co. also purchases Long Beach crude and is maintaining the same gravity and price schedule in t hat field as the Standard maintains in Signal Hill and Huntington Beach fields. The Union also buys and pays the same prices as the Standard in the Rosecrans-Do minguez fields, on gravities ranging from 14 degrees to and including 24.9 degrees and in Santa Fe Springs, on gravities ranging from 20 to and including 25.9 degrees.

REFINERS' and COMPOUNDERS' SUPPLIES

Following are the average market prices for the week on materials used by refiners and compounders f. o. b. shipping point as effective this date.

Refiners' Supplies

	Sept. 13	Sept. 6
Soda Ash light 58% bags.cwt.	$1.38	$1.38
Silicate of Soda 60 deg. drums.....cwt.	-$1.65	-$1.65
Sal Soda wks.....	.90- 1.10	.90- 1.10
Caustic Soda 70% solid..cwt.	- 3.10	- 3.10
Chloride of Lime.....cwt.		
works.....	- 2.00	- 2.00
Sulphuric Acid 60 deg. tank cars f. o. b. shipping point.....per ton	10.50–11.00	10.50–11.00
Liquid Chlorine tank cars works.....lb.	- .04	- .04

Compounders' Supplies (Open Market)

Vegetable Oils—		
Linseed carloads spot.....lb.	11.8	11.5
Sept.-Dec.	11.3	11.5
Tanks, spot.....	11.5	11.7
Boiled carloads spot.....lb.	10.9	11.1
*Soya Bean spot, Bbls....lb.	14¾	14¾
Castor Oil—		
No. 1 Carlots, Bbls.....	-.12½	-.12½
No. 3 Carlots, Bbls.....	-.12	-.12
Animal Oils—		
English Degras.....lb.	.05½	-.05½
Domestic Degras, bbls., carloads.....lb.	-.04¾	-.04¾
*Horse.....lb.	-.08½	-.09
Oleic Acid—		
Dist. Bbls.....lb.	.09¾-.10¼	.09¾-.10¼
Saponified Bbls.....lb.	.11 -.11½	.11 -.11½
Lard Oils—		
Prime		
Winter		
Strained. to 1½ffa.	40/45c.t.lb. .17	.17
Extra		
Winter		
Strained. 2 to 4½ffa.	40/45c.t.lb. .12¾	.12¾
Extra..... 4 to 5 ffa.	40/45c.t.lb. .12½	.12½
Extra No.1 7 to 10 ffa.	40/50c.t.lb. .11¾	.11¾
No. 1.....15 to 18 ffa.	40/45c.t.lb. .11½	.11½
No. 2.....22 to 28 ffa.	40/45c.t.lb. .11¼	.11¼
Prime Edible Tallow under 1⅜ffa. 40/45c.t.N.Y.....lb.	-.09¾	-.09¾
Tallow acidless.....lb.	-.11¼	-.11¼
Lard Stearine.....lb.	nominal	nominal
Oleo Stearine.....lb.	-.12	.-12
Neatsfoot Oil—		
Pure.....bbls.-lb.	.15¾	.15¾
Extra.....do...lb.	.11¾	.11¾
No. 1.....bbls.-lb.	.11¼	.11¼
Cold pressed.....lb.	.18¼	.18¼
Fish Oils—		
Menhaden Oil		
Light pressed.....gal.	-.65	-.65
White.....gal.	-.70	-.70
Yellow bleached.....gal.	-.68	-.68
*Herring tank cars coast.....gal.	-.47	-.47
Whale, extra winter bleached.....gal.	.82	-.82
Seal.....gal.		nominal
Naval Stores—		
Turpentine, N. Y.....gal.	.91½	.94½
Turpentine†.....gal.	.85¼	.87¼
Rosin, B. N. Y.....bbl.	14.25	14.30
Rosin, F. N. Y.....bbl.	15.75	15.55
Rosin, B†.....bbl.	12.75	12.55
Rosin, F†.....bbl.	14.10	14.05
Rosin Oil 1st run.....gal.	.78	.78
Rosin Oil 2nd run.....gal.	.82	.82
Pine Tar—		
Kiln Burnt.....bbl.	14.50	14.50
Retort.....bbl.	18.50	18.50

†Savannah, Ga. market.
*Nominal.

Alcohol—Denatured Formula 5		
Bbls.....gal.	-39	-39
Drums.....gal.	-32	-32

Crude Price Changes

HOUSTON.—Humble Oil & Refining Co. on Sept. 10 announced that it had reinstated the price of $1.25 per barrel on Mirando crude, retroactive to Aug. 30. On the latter date it had announced a reduction of 25 cents on Mirando, to $1.

* * *

FINDLAY, O.—On Sept. 8 Ohio Oil Co. advanced Sunburst, Mont., crude 10 cents, to $1.15 per barrel.

* * *

FINDLAY, O.—On Sept. 14 Ohio Oil Co. again advanced Sunburst, Mont. crude 10 cents, to $1.25 per barrel.

Predicts Benzol Price Cut

NEW YORK, Sept. 13.—It is reported on reliable authority that on or about Oct. 1 motor benzol will be reduced 1 cent a gallon to 24 cents a gallon, in tank cars at the ovens. The production of by-product coke has been much heavier than expected. This increased production has brought about a heavy increase in benzol output.

Motor benzol stocks are large. Consumption of benzol is up to expectations but apparently not quite large enough to offset increased output.

Refiners Oil Buys Four Jobbers' Properties

DAYTON, O., Sept. 13.—Four oil jobbing and marketing companies have recently been taken over by the Refiners Oil Co. of Dayton, which enlarges its marketing territory in Ohio, Kentucky and Indiana. The company is also erecting a plant at Mansfield, O., which will be open within the next 30 days. Service stations and tank trucks will be operated out of that plant and lubricating oil salesmen will also work out of that plant in Mansfield territory.

The properties of the four companies which the Refiners company just acquired include: The Robbins Oil Co., Falmouth, Ky., which is being operated as a branch with Mr. Robbins as manager at Falmouth; Franklin S. Glenn Oil Co., Muncie, Ind., where the Refiners company had already had an established tank truck business as well as a brick service station; The Citizens Oil Co., Celina, O., which had been operating one service station in Celina; and Carroll Oil Co., Hillsboro, O.

The latter company had been maintaining two branches, one at Peebles, O., and the other at Manchester, O., both of which were included in the acquisition by the Refiners company. The Carroll company operated seven tank trucks and one dray, one service station at Hillsboro and one in West Union. Mr. Carroll has been retained as manager of the Hillsboro branch and as supervisor over Peebles and Manchester business by the Refiners company. The latter is operating three tank trucks and one dray out of the Hillsboro branch, and two tank trucks out of Peebles and Manchester each.

Additional properties are being looked over by the Refiners company and it expects to enter northwestern Ohio the latter part of the year, according to W. E. Talbot, general manager.

Los Angeles Water Shipments, Week Ended Sept. 11

(Barrels of 42 U. S. Gallons)

	Crude	Gasoline	Tops	Fuel Oil	All Products
Atlantic Domestic	251,000	74,046	.....	73,085	398,131
Atlantic Foreign	110,375	96,991	.....	.....	207,366
Pacific Domestic	451,466	154,695	5,525	129,600	741,286
Pacific Foreign	65,407	.....	.....	275,131	340,538
Total shipments for week ended Sept. 11 (27 tankers)					1,687,321
Total shipments for week ended Sept. 4 (34 tankers)					2,035,565
Total shipments for week ended Aug. 28 (34 tankers)					2,213,611

Ships Clearing for Atlantic Seaboard

Tankers	Destination	Consignee	Barrels
Agwilke	New York	Tidewater Oil Co.	90,000 Crude
B. D. Benson	New York	Standard Oil Co.	84,000 Crude
Swift Arrow	Fall River	Standard Oil Co.	77,000 Crude
Emidio	Baltimore	General Petroleum Corp.	74,046 Gasoline
I. C. White	New York	Pan-American Petroleum Co.	73,085 Fuel

Eastern and Central Kentucky Markets

ASHLAND & LEXINGTON, KY., Sept. 14.—Gasolines and fuel oil demand on increase in Kentucky districts with report from one refiner that output is sold up for a week ahead. Kerosene is firm with supply scarce. Gas Oil remains unchanged.

Today's quotations are:

	Eastern	Central
58-60 Gasoline	13¾	12¾
60-62 Gasoline	14	13¾
64-66 Gasoline	14¼	14¼
68-70 Gasoline	14½	....
41-43 Kerosene	10⅝	11½
24-26 Fuel Oil	5¼	5¼
Gas Oil	7	6

OIL STOCKS AND FINANCES

National Petroleum News

Oklahoma Gas Company Offers Debentures

CLEVELAND, Sept. 11.—Oklahoma Natural Gas Corp. has offered at 99 $6,000,000 6½ per cent convertible sinking fund gold debentures, due Sept. 1, 1941. At the price the yield is 6.60 per cent. Offering was through White, Weld & Co. and Blyth, Witter & Co.

The Oklahoma Natural Gas Corp. was chartered recently in Delaware to acquire the assets of the Oklahoma Natural Gas Co., the Kingwood Pipeline Co. and Southern Gas Co. and stock or assets of the Okmulgee Gas Co. The territory served with natural gas by these companies includes Tulsa, Sapulpa and Okmulgee at retail and Oklahoma City, Guthrie and Muskogee at wholesale.

The corporation has authorized $10,000,000 of 7 per cent preferred stock, par value $100 a share and 500,000 no par common shares. There will be outstanding presently, the bankers announced, $2,100,000 of the preferred and 260,000 shares of the common. The remaining authorized common has been reserved for conversion of the debentures into common stock at the rate of 40 shares of stock for each $1,000 principal amount of bonds. Conversion may be made until five days before maturity of the debentures.

Property to be acquired by the corporation includes 126,200 acres of leaseholds, of which 100,000 are said to be proven, and gas purchase contracts on 101,935 acres; more than 1800 miles of transmission and distributing lines and nine compressor stations. It will acquire 430 producing wells.

Galena Signal Passes Preferred Dividend

CLEVELAND, Sept. 11.—Galena Signal Oil Co. directors passed dividends due Sept. 30 on its two classes of preferred stock. Dividends have been paid on Galena's old preferred since the Standard Oil dissolution and on the new preferred since its issue in 1918. Dividends on common stock have not been paid since June 30, 1925.

The company has earned a profit in the first seven months of 1926, Secretary J. French Miller, notified stockholders, but because of development and expansion program, interest on debentures, and additional income tax assessments covering previous years, the directors decided to conserve the company's cash position.

In the notification Mr. Miller said that while the company was still the leader in railroad lubrication it did not have the same volume of this business as formerly because of the "severity and nature of the competition it has encountered."

Its largest subsidiary, the Galena Signal Oil Co. of Texas, Mr. Miller said, has been rounded out with the exception of adequate facilities to market directly to consumers. Present policies, he concluded, are expected to increase earnings and permit resumption of dividends.

Pan American Earnings Slightly Lower

NEW YORK, Sept. 11.—Net profit of Pan American Petroleum & Transport Co. after all charges amounted to $15,335,616 in first half of 1926. Of this amount $14,020,326 came from Mexican Petroleum Co. of Delaware, its principal operating subsidiary. The Pan American's net was equivalent to $5.56 a share on the combined A and B stock, compared with $6.02 a share in the first half of 1925. The earnings statement contained no part of the company's share in Lago Oil & Transport Corp. profits.

Mexican Petroleum's net was equal to $29.60 a share on the common stock after dividends on the 8 per cent preferred.

Pan American and subsidiaries' condensed income statement follows:

Operating profit	$23,870,915
Interest, amortization	255,900
Depreciation, depletion	5,591,345
Federal taxes	2,435,000
Mining interest property	253,054
Net profit	$15,335,616

Mexican Petroleum's consolidated income account follows:

Operating profit	$19,941,806
Other income	196,298
Total	$20,138,104
Depreciation, depletion	3,927,778
Federal taxes	2,190,000
Net profit	$14,020,326

Skelly Company Reports Its Best Half Year

TULSA, Sept. 11.—The Skelly Oil Co. for the six months ended June 30 reported net earnings, after all charges, including depreciation and depletion, of $3,106,458, or $3.18 a share, compared with $2,328,344, or $2.79 a share in the first six months of 1925. This is the Skelly company's greatest earnings record.

Earnings of the company for 1925 were over twice the dividend rate and for the first half of 1926 were more than three times the dividend requirements for that period.

With 53 wells drilling the company reports it is engaged upon the greatest production activity of its career. At least 20 more wells will be started before the end of September.

Dividend checks for $512,871.80 have just been mailed to 2610 stockholders. This amount is at the rate of 2 per cent.

Cleveland Stock Market

Sept. 10

	Par	Bid	Asked	Last Sale
Canfield Oil Co.	$100	108	.....	105
do pfd.	100	.....	95	95
Fred G. Clark Co.	10	3⅜	4	3½
National Refining Co.	25	37½	38½	37¾
do pfd.	100	130¼	.....	130½
Paragon Refining Co.	25	7½	8	7¾
do pfd.	100	60	82	80

Oil Dividends

	Amt.	Payable	Stock of Record
Associated Oil q.	50c	Sept 25	Sept. 11
do extra	40c	Sept. 25	Sept. 11
Borne Scrymser s.a.	$4	Oct. 15	Sept. 26
do extra	$4	Oct. 15	Sept. 26
Gulf Oil q.	37½c	Oct. 1	Sept. 20
Humble Oil q.	30c	Oct. 1	Sept. 11
do extra	20c	Oct. 1	Sept. 11
Lion Oil q.	50c	Oct. 27	Sept. 30
Marland Oil q.	$1	Sept. 30	Sept. 18
Mountain Prod. q.	60c	Oct. 1	Sept. 15
Ohio Fuel q.	2%	Oct. 15	Sept. 30
Salt Creek Cons. q.	20c	Oct. 1	Sept. 15
Shaffer O & R pfd. q.	1¾%	Oct. 25	Sept. 30
S. O. Kentucky q.	$1	Sept. 30	Sept. 15
Tide Water q.	37½c	Sept. 30	Sept. 11
Tide Water-Assoc. q.	30c	Oct. 1	Sept. 11
do pfd. q.	$1.50	Oct. 1	Sept. 11

Financial Notes

Barnsdall Corp.—Net income for seven months ended July 31 after interest, depreciation and depletion, was $3,687,106, equivalent to $3.71 a share on the 1,137,561 shares of common and preferred stock outstanding. July earnings were 47 cents a share, compared with 37 cents a share in July, 1925. Production in the seven months amounted to 3,323,842 barrels compared with 1,551,842 barrels in the corresponding months of 1925. Production of natural gasoline was 5,496,730 gallons compared with 1,868,888.

Transactions In Oil Shares on New York Stock Exchange

1925 High	1925 Low	1926 High	1926 Low		Listed Capital	Par Value	Stocks	Div. Rate	Last Paid	Transactions week ended Sept. 11 Sales	First	High	Low	Last	Ch'ge
.....	.....	82⅜	24¼	(sh)	713,000	N.P.	Amerada Corp.	40cQ	July 30, 26	4,000	31⅝	31⅝	30¾	30⅞	— ¼
79¾	48	74	50	(sh)	200,000	N.P.	American Republics	.....	.....	100	58¼	58¼	58⅛	58¼	+ ⅛
47½	32	59½	44¾	$	56,000,000	$25	Associated Oil	50cQ	July 24, 26	.....	.....	.....	.....	.....	.....
117½	95½	128¾	97		50,000,000	100	Atlantic Refining	.....	June 16, 24	2,500	114⅜	115⅞	111	111⅜	— ⅝
117¾	113½	120	115¼		20,000,000	100	do pfd	$1¾Q	Aug. 2, 26	100	116¼	116¼	116¼	116¼	— ¼
38½	18¾	33½	23¾		25,000,000	25	Barnsdall Corp. A	50cQ	July 1, 26	61,800	28⅞	30½	28⅛	28½	+ ⅜
30	16	29½	23		3,713,275	25	do B	50cQ	July 1, 26	2,300	26	26½	25¾	26	+ ¼
84⅜	28⅞	38⅛	30⅝	$	45,040,125	$25	California Petroleum	50cQ	Sept. 1, 26	12,900	33⅜	33⅞	32½	32½	— ¾
70	42⅜	94½	50		28,542,500	100	General Asphalt	.....	.....	69,300	90	92⅜	86⅝	86⅝	—2½
109	86½	140⅜	94⅞		7,416,000	100	do pfd	$1¾Q	Sept. 1, 26	1,100	135	138½	134	134	+3
59⅝	42	70⅜	49⅜		29,429,550	25	General Petroleum	75cQ	June 1, 26	.....	.....	.....	.....	.....	.....
85	59	72	50¼		25,000,000	100	Houston Oil	.....	.....	1,300	63	66	61	61½	—1¼
41¾	13½	34	19⅝	(sh)	500,000	N.P.	Independent Oil & Gas	25cQ	July 19, 26	32,400	25⅝	27½	25½	26⅝	+1
14¼	5¾	13¾	9	$	3,204,590	$10	Indian Refining	.....	Dec. 15 20	900	9⅝	9⅝	9	9	— ¾
12⅝	6	12¾	8		4,545,860	10	do ctfs	.....	.....	1,400	9½	9½	9	9	— ⅛
110	77	104	90		2,296,400	100	do pfd	.....	Dec. 15, 21	.....	.....	.....	.....	.....	.....
1½	¼	¾	⅛		1,678,760	10	Kansas & Gulf	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	24½	19⅛	(sh)	4,000,000	N.P.	Lago Oil & Transport	.....	.....	22,800	22⅝	22½	20⅞	21¼	— ¾
28¾	13¾	19⅞	12	(sh)	1,131,216	N.P.	Louisiana Oil Refining	.....	.....	5,600	17	17	16	16	— ¾
.....	.....	97	93½	$	4,000,000	$100	do pfd	$1¾Q	Aug. 16, 26	300	95	96	95	96	+1½
85½	20¾	28⅞	20¾	(sh)	330,000	N.P.	Maracaibo Oil	.....	.....	1,700	24	24	22½	22¾	— ¾
60½	32⅝	63⅜	49¼	(sh)	1,895,823	N.P.	Marland Oil Co	$1Q	June 30, 26	66,000	60⅛	61	57¾	58	—1½
250	225	.....	.....	$	45,942,800	$100	Mexican Petroleum	$3Q	July 20, 26	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....		12,000,000	100	do pfd	$2Q	July 20, 26	.....	.....	.....	.....	.....	.....
22½	29	13¾	6	(sh)	945,939	N.P.	Mexican Seaboard	.....	Nov. 15, 24	500	11	11	10⅝	10⅝	— ⅜
38	25¾	37	27½	(sh)	1,357,800	N.P.	Mid-Continent Petroleum	.....	Aug. 1, 23	24,800	32¾	33¼	31⅜	31⅜	—1¼
94¾	88	100⅜	90	$	6,718,000	$100	do pfd	$1¾Q	Sept. 1, 26	100	98	98	98	98	— ½
3¼	⅜	2½	1⅛		25,415,540	10	Middle States	.....	July 1, 23	3,000	1⅛	1⅜	1⅛	1⅜	0
1½	1½	1¾	⅞		4,384,680	....	do ctfs	.....	.....	300	⅞	⅞	⅞	⅞	0
78½	51⅜	83¼	1	(sh)	3,500,000	N.P.	Pacific Oil	$1.50S.A.	Jan. 20, 26	21,400	1½	1⅝	1½	1½	0
85⅞	59½	76½	56⅛	$	48,307,400	$50	Pan American P. & T	$1.50Q	July 20, 26	1,100	69¾	69¾	67⅞	67⅞	— ⅝
84½	60⅜	78¾	56⅞		91,025,100	50	do B	$1.50Q	July 20, 26	39,500	69¼	70½	67⅜	67½	—1¼
49¾	37¾	46	34	(sh)	400,000	N.P.	Pan American Western B	50cQ	July 30, 26	3,600	37	37	35½	36	—1½
6¼	2¼	32	4½	(sh)	198,770	N.P.	Panhandle P. & R	.....	.....	4,300	19⅞	19⅞	17⅝	17⅝	—2¼
60½	37	99⅜	51	$	2,935,200	$100	do pfd	.....	July 2, 25	100	83	83	83	83	+2
47⅜	36¼	52¾	40	(sh)	2,406,692	N.P.	Phillips Petroleum	75cQ	July 1, 26	98,700	52½	52¾	49⅞	50	—2¼
3½	1¼	1⅞	⅝	$	29,622,925	$25	Pierce Oil Corp	.....	.....	700	⅝	¾	⅝	⅝	0
40	20¾	27⅜	13		15,000,000	100	do pfd	.....	Feb. 1, 22	100	13	13	†13	13	—1
8¼	4½	7	3	(sh)	2,500,000	N.P.	Pierce Petroleum	.....	.....	5,100	3⅛	3⅛	3	3⅛	+ ⅛
82⅝	12½	17¼	11	$	11,467,850	$50	Producers & Refiners	.....	Sept. 15, 23	800	13¾	13¾	13⅛	13⅜	—1⅛
47⅝	27	55¾	30¾		2,845,350	50	do pfd	.....	May 1, 25	200	33	33	33	33	—2
88¾	25⅛	81	25⅜		75,959,250	25	Pure Oil Co	$7½cQ	Sept. 1, 26	14,500	27⅝	28½	26⅞	26¾	— ⅜
108½	103	112¾	106		13,000,000	100	do 8% pfd	$2Q	July 1, 26	.....	.....	.....	.....	.....	.....
57⅜	48¼	57⅜	49¾	(sh)	691,922	13.40	Royal Dutch, N. Y. shares	$1.73Q	Aug. 2, 26	7,395	51¾	52	51⅜	51⅜	+ ⅜
49	39½	48⅝	41	(sh)	93,345	£2	Shell Transport & T	$1.21	July 24, 26	900	43½	43½	43⅝	43⅝	+ ⅝
28⅜	21⅝	30½	24	(sh)	10,000,000	N.P.	Shell Union Oil	35cQ	June 30 26	15,800	30⅜	30⅜	x29⅝	29¼	— ⅞
106½	99½	114	103	$	20,000,000	$100	do pfd	$1½Q	Aug. 15, 26	.....	.....	.....	.....	.....	.....
28½	17¾	28⅝	15⅜		7,207,620	10	Simms Petroleum	50cS.A.	July 1, 26	5,300	18⅞	18⅞	18	18	— ⅝
24⅞	17	24⅞	19⅜	(sh)	4,489,887	N.P.	Sinclair Consolidated	.....	May 31, 24	13,700	21¾	22	21	21	— ¾
94⅜	78¾	99½	90	$	17,852,200	$100	do pfd	$2Q	Aug. 15, 26	200	98	98¾	98	98¼	+ ¼
32½	21¾	36⅞	26⅝		23,988,590	25	Skelly Oil Co	50cQ	Sept. 15, 26	17,900	36⅜	36½	35	35	— ½
.....	.....	63¾	52⅝	(sh)	13,016,434	N.P.	S. O. California	50cQ	Sept. 15, 26	29,000	63⅛	63⅝	61¼	61½	—1¾
47½	38⅜	46⅜	40¼		515,109,675	25	S. O. New Jersey	25cQ	Sept. 15, 26	33,800	43¾	44	43½	43¾	— ½
119	116¾	119⅝	115¾		199,972,900	100	do pfd	$1¾Q	Sept. 15, 26	1,900	115¾	115¾	115½	115¾	+ ¼
43⅞	38⅛	41⅜	30⅛	(sh)	1,103,931	N.P.	Sun Oil	25cQ	Sept. 15, 26	1,800	33	33⅜	32⅞	32⅞	+ ⅛
6⅛	2	4¼	1	(sh)	1,121,368	N.P.	Superior Oil Corp	.....	Dec. 20, 20	1,300	2⅛	2	2	2	— ⅛
55	42¾	57¼	48	$	164,450,000	$25	The Texas Co	75cQ	Mar. 31, 26	40,500	57⅜	57¼	54	54	—2½
23⅜	10⅞	19½	12⅛		8,380,340	10	Texas Pacific Coal & Oil	.....	June 30, 23	9,100	15½	16	14¾	14⅞	— ⅜
36⅞	30¼	39¼	30	(sh)	2,137,570	N.P.	Tide Water Oil Co	37½c	June 30, 26	300	31	31	x31	31	+ ⅞
101	99	103	90	$	20,672,900	$100	do 5% pfd	$1.25Q	Aug. 15, 26	400	92⅝	92⅝	92	92	— ⅜
5⅜	3¼	5⅜	3	(sh)	3,742,029	N.P.	Transcontinental Oil	.....	.....	8,800	4½	4⅝	4⅜	4⅜	— ⅛
48⅜	33	58	37¼	$	40,480,800	$25	Union Oil of California	50cQ	Aug. 10, 26	8,500	53¾	53⅞	51¼	51¾	—1½
134	96¼	117½	80		24,423,300	100	Union Tank Car Co	$1¼Q	Sept. 1. 26	4,400	114	*117½	110	116½	+3½
117½	113¼	118	113¼		12,000,000	100	do pfd	$1¾Q	Sept. 1 26	.....	.....	.....	.....	.....	.....
31¾	25½	29¼	25⅛	(sh)	490,000	N.P.	White Eagle Oil & Refining	50cQ	July 20, 26	1,600	26½	27	26¼	26½	0

*New High †New Low xEx-dividend Total Sales 707,895

Pittsburgh Stock Exchange

1925 High	1925 Low	1926 High	1926 Low	Par Value	Stocks	Transactions Week Ended Sept. 10 Sales	First	High	Low	Last	Ch'ge
.....	.....	6¾	6⅜	N.P.	Andes Petroleum	.....	.....	.....	.....	.....	.....
8¼	5¼	7	5¾	$10	Arkansas Nat. Gas	12,100	6⅜	6¾	6¼	6½	+ ⅛
.....	.....	81	79¾	....	Columbia Gas (w.i.)	.....	.....	.....	.....	.....	.....
.....	.....	96¼	95	$100	Col. Gas & El. pfd w.i.	.....	.....	.....	.....	.....	.....
18	14½	17	12½	$10	Devonian Oil	110	16⅜	16⅜	16⅜	16⅜	0
112⅝	105⅝	115½	112	$100	Duquesne Lt. 7s pfd	.....	.....	.....	.....	.....	.....
.....	.....	10	5½	N.P.	HoustonGulfGas(w.i.)	734	6¾	6¾	6⅛	6⅛	— ⅝
.....	.....	42½	30	25	Lone Star Gas Corp	4,041	38½	39	38½	39	+ ½
.....	.....	.....	.....	.....	Lone Star Gas rights	.....	.....	.....	.....	.....	.....
87¼	31	43½	33⅜	25	Ohio Fuel Corp	10,072	42½	42½	42⅜	42½	+ ⅜
.....	.....	5	5	....	Ohio Oil & Gas	.....	.....	.....	.....	.....	.....
34	26	34	28	25	Oklahoma Nat. Gas	600	28¼	28⅜	28¼	28⅜	0
8¾	5	5⅜	3⅛	5	Pittsburgh O. & G	100	4	4	4	4	0
9⅜	6	10	8	10	Salt Creek Cons	385	8¾	9	8¾	9	+ ⅛
13¾	8¼	20	8	10	Tidal Osage	11,626	14½	*20	14½	19½	+5½
.....	.....	42½	40¾	N.P.	Waverly Oil Wks	.....	.....	.....	.....	.....	.....

Pittsburgh Curb Market

1925 High	1925 Low	1926 High	1926 Low	Par Value	Stocks	Transactions Week Ended Sept. 10 Sales	First	High	Low	Last	Ch'ge
2½	.60	3⅜	2½	$ 5	Colombia Synd	.....	.....	.....	.....	.....	.....
.60	.15	.15	.15	5	Duquesne Oil	.....	.....	.....	.....	.....	.....
9	5½	.....	.....	10	Forest Oil	.....	.....	.....	.....	.....	.....
92⅜	64	91½	85	25	Gulf Oil Corp	.....	.....	.....	.....	.....	.....
12½	3¼	12	7½	N.P.	Leonard Oil & Dvlp	500	9	9	9	9	0
.....	.....	.....	.....	....	LoneStar rights (w.i.)	.....	.....	.....	.....	.....	.....
.....	.....	1⅝	1⅝	N.P.	Mountain & Gulf	.....	.....	.....	.....	.....	.....
2¾	1⅜	.....	.....	1	Oklahoma Eastern	.....	.....	.....	.....	.....	.....
.47	.20	.42	.15	10	Omar O. & G	1,100	.42	*.42	.42	.42	+.07
.....	.....	2	1¾	5	Pittsburgh Oil Dev	.....	.....	.....	.....	.....	.....
27½	25	33½	26	10	Plymouth Oil	300	30½	30½	30	30	—1
7	3	5½	3	5	States Oil	100	4½	4½	4½	4½	0
4	1⅞	3½	2¾	$ 1	Texon Oil & Land	1,750	3⅜	3⅜	3	3⅜	0
11	9	18½	8	10	TidalOsage(non-voting)	1,349	14	*18½	12½	18½	+6½

*New High †New Low xEx Dividend ‡Ex-Rights

NEW YORK BONDS

Week Ending Sept. 10

	High	Low	Last	Ch'ge
Amer. Rep. Deb. 6s	99⅞	99⅞	99⅞	0
Associated Oil gold 6s	103	102¾	103	0
Atlantic Refg. deb. 5s	101½	101¼	101½	+ ⅛
Barnsdall Corp. 6s	99¾	98¾	98¾	— ¾
Cal. Petrol. sf. 6½s	105	104	104	+ ⅜
Empire Gas & Fuel 7½s	103¼	102	103	0
Empire Gas & Fuel 6½s	97¼	97	97⅝	0
Gen. Asphalt 6s	110	109¼	110	+1½
Gen. Petroleum 5s	100⅜	100	100¼	0
Humble Oil & Refg. 5½s	102⅝	102	102⅜	+ ⅜
Mid-Cont. Pet. 6½s	105	104	104½	+ ⅝
Pan-Amer. P.&T. 7s	105½	105¼	105¼	— ⅜
Pan-Amer. P.&T. 6s	106⅞	106⅛	106⅛	— ⅝
Pierce Oil deb. 8s	103	103	103	0
Prod. & Refnrs. 8s	111	111	111	0
Sinclair Con. Oil Col. 7s	99⅜	98¼	98¼	— 1
Sinclair Con. Oil Con. 6½s	93	92½	92¾	— ¼
Sinclair Con. Oil 6s	104½	103½	103½	— ⅝
Sinclair Crude Oil 6s	101⅜	100⅞	101	0
Sinclair Pipe Line sf 5s	93½	91⅞	93¾	+1¼
Skelly Oil 6½s	146	140⅜	140⅜	—4¾
Superior Oil 7s	96	96	96	+1
Union Oil of Cal. 5s-C	98¾	98⅝	98¾	0

NEW YORK CURB BONDS

Week Ending Sept. 10

	High	Low	Last	Ch'ge
Cities Serv. 6s '66	93⅜	93⅛	93⅜	+ ⅛
Cities Serv. 7s "D" '66	112¼	111⅞	112	— ½
Cities Serv. 8s "E" '66	118½	118	118	—1
Galena S. O. 7s '30	92¾	91	91	—1½
General Pet. 6s '28	101½	101⅛	101⅛	0
Gulf Oil 5s '37	100⅝	100⅛	100⅝	— ⅛
Indepen. Oil 6½s '31	97¾	96½	97¼	+ ⅜
Pan Amer. Pet. 6s '40	102½	102	102	— ½
Pure Oil 6½s '33	104	103⅜	104	+ ¾
SONY 6½s '33	105⅞	105¼	105⅝	0
Sun Oil 5½s '39	99½	99½	99½	0
Tidal Osage 7s '31	104¼	104¼	104¼	— ⅜
Trans. Cont. Oil 7s '30	97	97	97	— ½
Valvoline 7s '37	105	105	105	0

Standard Oil Stock Traded in New York Curb Market

1925 High	1925 Low	1926 High	1926 Low	Outstanding Capital	Par Value	Stocks	Div. Rate	Last Paid	Transactions week ended Sept. 10 Sales	First	High	Low	Last	Ch'ge
26⅝	17¼	19¾	16⅜ £	4,000,000	£1	Anglo American	60¾cS.A.	May 27,26	1,900	18⅜	18½	18⅜	18⅜	+ ¼
.....	.....	18¼	16½	.....	£1	do ctfsnon votg	.....	.....	400	17¾	17¾	17¾	17¾	0
4¼	1⅜	2¼	1⅜ (sh)	500,000	N.P.	Atlanti c Lobos	.....	.....	200	1½	1½	1½	1½	— ⅛
12⅜	3	5	3¼ $	10,000,000	$10	do pfd	.....	.....	.....	.....	.....	.....	.....	.....
240	205	301	226	1,000,000	100	Borne Scrymser	$4S.A.	Apr. 15,26	230	290	*301	290	297	+12
72	53½	59½	46¼	10,000,000	50	Buckeye Pipe Line	$1Q	Sept. 15,26	400	46½	47	46½	46½	0
74	48½	75¼	65	3,000,000	25	Chesebrough Mfg	75cQ	June 30,26	600	74	75	x74	75	+1
115	110	.....	.....	1,000,000	100	do pfd	$1¾Q	June 30,26	.....	.....	.....	.....	.....	.....
31½	21⅞	25⅞	19½	34,914,280	10	Continental Oil	25cQ	Sept. 15,26	6,900	21	21⅜	20¾	20¾	— ¼
17½	10	17	13½	1,500,000	25	Crescent Pipe Line	.....	Sept. 15,25	.....	.....	.....	.....	.....	.....
156	132	137	107½	3,000,000	100	Cumberland Pipe Line	$3Q	Sept. 15,26	20	113	113	113	113	+4
96	61	63¾	47¾	5,000,000	100	Eureka Pipe Line	$1Q	Aug. 2,26	100	49	49	49	49	0
68¼	23½	32½	16⅜	16,000,000	100	Galena Signal Oil	.....	June 30,25	1,220	20	20	†16⅜	16⅜	—2⅞
105	88	94½	50	4,000,000	100	do new pfd	$2Q	June 30,26	80	65	65	†50	50	—22
114	95	97½	59	2,000,000	100	do old pfd	$2Q	June 30,26	630	70	70	†59	59	+11¼
95	42¼	68¾	53½	72,916,650	25	Humble Oil & Refining	30cQ	July 1,26	7,600	62½	63	59¾	60	—1⅞
154½	127	144½	131	20,000,000	100	Illinois Pipe Line	$6S.A.	June 30,26	90	134½	134½	134	134½	+ ½
39¼	27¼	38¾	31½ sh	6,491,852	N.P.	Imperial of Canada	25cQ	Sept. 1,26	4,300	36⅞	37⅛	36⅞	36⅞	— ⅛
84	57⅛	70	58 8	5,000,000	50	Indiana Pipe Line	$1Q	Aug. 14,26	50	58	58	58	58	— ½
35⅜	22⅝	35¼	28¾ sh	7,118,138	N.P.	International Petroleum	25cS.A.	Aug. 15,26	10,800	34½	34½	33¾	33¾	— ⅝
25⅝	16½	20⅝	13⅜ 8	6,362,500	$12½	National Transit	25cQ	Sept. 15,26	300	14¼	14⅜	14¼	14¼	+ ⅛
79	49¼	51½	33¼	5,000,000	100	New York Transit	$1¼Q	July 15,26	50	34	34	34	34	—1
88	67½	80½	68	4,000,000	100	Northern Pipe Line	$3S.A.	July 1,26	.....	.....	.....	.....	.....	.....
75¼	60¼	67⅜	55¾	60,000,000	25	Ohio Oil Co	50cQ	Sept. 15,26	2,000	63	64	60¾	60¾	—3½
44½	19	24¾	15	10,000,000	25	Penn Mex Fuel	.....	May 21,25	100	18¾	18¼	18¼	18¼	—1¾
65½	45⅞	60¼	48	60,000,000	25	Prairie Oil & Gas	50cQ	Aug. 31,26	9,900	53⅝	54¾	52⅝	52¼	—1⅝
129¾	106	127½	122½	81,000,000	100	Prairie Pipe Line	$2Q	July 31,26	800	125	125¾	124¾	124¾	— ¼
254	200	220	184½	4,000,000	100	Solar Refining Co	$5S.A.	June 19,26	30	205	208	204	204	—2
103	63	74½	24⅞	10,000,000	100	Southern Pipe Line Co	$1Q	Mar. 1,26	100	24⅞	24⅞	24⅞	24⅞	0
47½	45	50	34½	20,000,000	25	South Penn Oil Co	37½cQ	June 30,26	300	39	39	38¼	39	0
84	50	56	49	3,500,000	100	South West Pa. Pipe Line	$1Q	July 1,26	.....	.....	.....	.....	.....	.....
70¾	59½	70½	61½ $	223,756,258	$25	S. O. Indiana	62½cQ	Sept. 15,26	23,700	64¾	65⅜	63⅞	64	— ½
46	30⅜	36½	19⅜	8,000,000	25	S. O. Kansas	.....	June 16,24	2,000	21¾	22¾	21⅜	22½	+ ½
137	114¾	134⅜	108	16,864,434	25	S. O. Kentucky	$1Q	June 30,26	300	124	124½	124	124½	— ⅜
270	231	275	183	4,500,000	100	S. O. Nebraska	$5S.A.	Dec. 19,25	.....	.....	.....	.....	.....	.....
.....	.....	51⅝	42	4,518,000	25	do new w i	63cQ	Sept. 20,26	600	48½	48½	46¾	46¾	—2¼
48⅜	40¼	47¼	30⅜	358,102,500	25	S. O. New York	40cQ	Sept. 15,26	27,600	33¼	33½	32⅜	33¼	—1
369	338	362	290½	14,000,000	100	S. O. Ohio	$2½Q	July 1,26	70	308	308	303	303	—5
123	116	122	117	7,000,000	100	do pfd	$1¾Q	Sept. 1,26	30	117⅜	117⅜	117	117	—1⅜
27	12	23	15½	1,722,931	25	Swan-Finch Co	.....	Nov. 1,19	.....	.....	.....	.....	.....	.....
109½	80⅛	112	95¾	61,919,950	25	Vacuum Oil Co	50cQ	Sept. 20,26	5,100	101	101¾	99⅛	99⅛	—2⅛

Patent Pending

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New York Curb Market

1925 High	1925 Low	1926 High	1926 Low	Par Value	Stocks	Transactions week ended Sept. 10 Sales	First	High	Low	Last	Ch'ge
11½	2⅛	14½	5	$ 5	Amer. Maracaibo	6,400	6	6½	5¾	5¾	— ¼
8⅜	5	6¾	5¾	$10	Arkansas Nat. Gas.	2,100	6⅛	6½	x6⅛	6⅛	+ ⅜
.....	.....	19⅜	14⅛	N.P.	Beacon Oil	10,300	19	*19⅜	18½	18½	— ¾
47½	38	.....	.....	$25	British-American	.....	.....	.....	.....	.....	.....
10¼	2¾	22⅞	9¼	25c	Carib. Syndicate	40,900	15¾	17⅛	15¼	16⅝	+2⅛
43	35	44¾	37½	$20	Cities Service	4,200	44¾	44¾	44½	44¾	0
85⅛	80¼	89⅝	82⅜	100	do pfd	1,200	89½	*89⅜	89⅛	89½	0
8	7⅛	7⅞	7⅜	10	do pfd. B	400	7¾	7¾	7¾	7¾	0
21⅜	17⅛	22¾	19	10	do bankers' sh	.....	.....	.....	.....	.....	.....
2¾	.60	3½	2	N.P.	Colombia Syndicate	.....	.....	.....	.....	.....	.....
15	8¼	16	10	N.P.	Creole Syndicate	47,300	15½	*16	14⅝	15¾	+ ¼
12¼	5	7⅜	1⅜	N.P.	Crown Central	1,200	2	2	1⅞	1⅞	— ⅛
7	2	4	1 1/16	N.P.	Derby Oil & Ref	100	3⅛	3⅛	3⅛	3⅛	+ ⅛
27	10½	19	13	N.P.	do pfd	100	16	16	16	16	—2
.....	.....	2¼	.88	.....	Euclid Oil	5,900	1 1/16	1 1/16	1 1/16	1⅜	— 1/16
6	1⅜	7½	3⅜	N.P.	Gibson Oil	10,900	3⅞	3⅞	3½	3½	— ⅜
3¾	1⅜	2	.63	N.P.	Gilliland v.t.c	.....	.....	.....	.....	.....	.....
98¼	63½	95	82	$25	Gulf Oil Corp	6,000	94¾	94¾	89¾	89¾	—5¼
5⅞	2¼	4	1½	N.P.	Kirby Petroleum	1,400	1⅞	2	1⅞	2	+ ¼
13	6	12¼	5¾	N.P.	Leonard Oil & Dev.	13,100	9	9	8⅜	8½	+ ⅜
25⅜	18	25¾	20	N.P.	Lion Oil Refining	1,100	22⅝	22¼	21¾	22¼	— ¼
.....	.....	42	31½	$25	Lone Star Gas	200	39	39	39	39	+1
4¼	1¾	3⅜	2	N.P.	Marland of Mexico	.....	.....	.....	.....	.....	.....
5¾	.56	5½	3⅜	$10	Mexican-Panuco	5,800	3⅞	4⅛	3⅞	4	— ⅛
2	1	1¾	1⅜	1	Mountain & Gulf	.....	.....	.....	.....	.....	.....
26¼	18⅜	26	23	10	Mountain Prod	4,200	25⅜	25⅞	25⅜	25½	+ ⅛
6¾	3⅝	6¾	5½	5	New Bradford	2,000	5⅝	5⅞	5⅝	5¾	+ ⅛
24¾	16¼	11¾	2	10	New England Fuel	.....	.....	.....	.....	.....	.....
19⅜	6¼	17	9⅛	1	New Mex. & Ariz	1,400	12½	12½	11¾	12	+ ⅛
12½	8¼	17	8	25	New York Oil	1,000	10⅝	10⅝	10½	10½	— ⅜
37	14	36	34¼	25	Ohio Fuel Corp	.....	.....	.....	.....	.....	.....
.....	.....	9⅞	6½	....	Pandem	4,000	7⅝	7⅝	†6½	6½	—1⅜
2½	.90	2¾	.50	N.P.	Peer Oil Corp	1,200	.57	.57	.55	.55	+ .03
28¼	16	22¾	14½	$10	Pennok Oil	300	17⅜	17¾	17⅜	17¾	+ ½
44½	16	38	14⅛	25	Red Bank Oil	600	28	28	25	26	—4
33½	19	28¾	14½	N.P.	Reiter-Foster	6,400	22¼	22¼	18	19⅝	—3¼
.....	.....	26⅞	26¼	$25	Richfield Oil w i	100	26⅞	*26⅞	26⅞	26⅞	+ ½
9½	3½	7½	4⅝	N.P.	Ryan Consolidated	16,000	5⅜	6	5⅜	6	+ ½
9¾	6⅜	10	8	$10	Salt Creek Cons	1,000	8⅞	9	8⅞	8⅞	0
35	24	36	28⅞	10	Salt Creek Prod	24,000	31¼	32⅞	31¼	32	+1¼
3⅞	1	4	1⅜	5	Savoy Oil	.....	.....	.....	.....	.....	.....
13¾	9	14¼	7⅝	10	Tidal Osage	12,900	14⅜	20	14⅜	19	+4¾
10⅞	8	19	8¼	10	do non-voting	17,500	13	*19	13	18½	+6
.....	.....	27	21	N.P.	Tide Water Assoc	8,700	24⅝	24⅝	x24¼	24½	— ⅛
.....	.....	99¼	97½	100	" " " pfd	1,100	97½	97⅜	x97½	97½	0
4⅞	1¾	8	4¼	5	Venezuelan Pet	3,200	6⅞	6⅞	6½	6½	— ¼
.....	.....	29¾	28½	N.P.	Warner-Quinlan	900	28⅞	28⅞	28½	28½	0
31¼	22⅜	36⅛	22	N.P.	Wilcox O. & G new	600	31	31	30¼	30¼	+ ¼
7	3⅞	9½	4⅜	N.P.	Woodley Petroleum	9,200	8½	*9½	8½	9¼	+ ½

*New High †New Low xEx-Dividend.

Denver Meeting To Stress Western Geology

Staff Special

HOUSTON, Sept. 13.—It is planned to stress Rocky Mountain geology in a way to show how the Mid-Continent, Rocky Mountain and Pacific provinces are broadly related at the coming regional meeting of the American Association of Petroleum Geologists in Denver, Sept. 20-24.

The plan is to have a number of leading papers presented with as much as two hours devoted to presentation and discussion of each paper, if necessary. Among the papers planned there probably will be, it is announced, a presentation by Bailey Willis on the relation of general structural Pacific Coast geology to that of the Rocky Mountains; one by J. V. Howell on the Amarillo district; one by J. W. Beede on general geology of southwestern Texas; one on Western Kansas; and one by T. S. Harrison and R. C. Coffin on Rocky Mountain geology as related to petroleum.

Other papers are to be presented by posting the manuscript and exhibits on bulletin boards in the anteroom where interested groups may study and discuss them. It is planned to have field trips to the Fort Collins-Wellington oil fields and the government oil shale plants near Glenwood Springs.

Entertainment for geologists and their ladies is provided for.

The following committee is in charge of arrangements at Denver.

General Chairman: Chas. M. Rath, Box 240, or First National Bank Building, Denver.

Program: Dean E. Winchester, Chairman, Joseph S. Irwin.

Publicity: Cassius A. Fisher.

Finance: Max W. Ball.

Reception and Field Trip: Chas. T. Lupton, Chairman, Jas. M. Douglas, E. M. Parks, Junius Henderson.

Registration: J. P. D. Hull, Chairman, E. Walter Krampert.

Entertainment: E. Russell Lloyd, Chairman, Harold W. Lowrie, Paul B. Whitney, Mrs. Thos. S. Harrison.

The geologists are to hold a joint session at this convention with the western division of the American Mining Congress, the Colorado Section of the American Institute of Mining and Metallurgical Engineers, and the American Silver Producers Association.

Alex W. McCoy, 1020 Patterson Building, Denver, president of the American Association of Petroleum Geologists, states that in order not to conflict in any way with the New York meeting of the Association in November, only papers dealing with the Rocky Mountain district, western Kansas, western Oklahoma, western Texas, and California will be presented at the Denver meeting.

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